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ABSTRACT

To examine the impact of evaluating one's transferable skills on subsequent employment experiences, a follow-up study compared past participants in Columbia University's Deep Investigation of Growth (DIG) program with a group of non-participants and a pre-program group. The program guides participants through a self-analysis process to identify personal success factors (skills) on which they are then encouraged to base career directions and job-seeking efforts. Data were collected on three principal measures of (1) extent to which skills were being utilized in present employment (Skill Utilization Index), (2) satisfaction with use of abilities, and (3) general job satisfaction--the latter two measures of the Minnesota Satisfaction Questionnaire (MSQ). Findings indicated no statistically significant differences between post- and non-participants but appreciable differences between the pre- and post-groups on all measures. This indicates that those who elected the program were helped by it, but that the program may not benefit everyone equally. Those who elected the program did not appreciate their own versatility and skill marketability, and the composite of their skills were different from their peers. A weakness of the approach is that although transferable skills of an individual are identified and make the focus of job-finding activities, no mechanism exists for describing jobs in the same way. (A summary report is available as CE 024 679.) (YLB)

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SELF-ASSESSMENT FOR CAREER CHANGE: DOES IT REALLY WORK?

A Follow-up Study

BEST COPY AVAILABLE

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FOREWORD

The National Center for Research in Vocational Education is continuing its programmatic research of occupational adaptability and transferable skills. This is one of a series of reports that has been developed to aid researchers and educators in preparing today's youth and adults for careers that will be characterized by change.

The study reported here was carried out to test some assumptions concerning the value of discovering one's transferable skills, particularly as that discovery may affect one's subsequent employment experience. Skills that have afforded personal satisfaction and fulfillment in past experiences were the special focus of the study.

Although clients of a particular program supplied a major part of the data used in the study, the program's skill assessment techniques are not novel. Generically speaking, their use is being advocated by an increasing number of authors and practitioners. Hence, it is hoped that this study's findings will be of interest to a wide audience.

We sincerely thank the several hundred alumni of Columbia University who gave of their time to respond to the survey. We are especially indebted to Richard Gummere, Joseph O'Steen, and members of the staff of Columbia's Career Advising Division, without whose unstinting cooperation this study would not have been possible. We are grateful, also, to Henry Pearson and Pricilla Elfrey for their careful reviews of the draft report; to Robert Stump, project monitor from the National Institute of Education, for his interest and helpful counsel throughout the study; and to John Crystal, Ruth Nickse, and Decker Walker for their services as consultants to the Transferable Skills project. This study has been a part of the Transferable Skills project directed by William Ashley. The study was conducted by Allen Wiant, assisted by Ronald Hutchinson.

Robert E. Taylor
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ABSTRACT

The National Center for Research in Vocational Education is continuing its programmatic research of occupational adaptability and transferable skills. This is one of a series of reports that has been developed to aid researchers and educators in preparing today's youth and adults for careers that will be characterized by change.

Available evidence indicates that many people in the American labor force change jobs, and some do so frequently. Individuals involved in changing from one job to another or from one occupational field to another encounter performance situations requiring the application of previously developed skills and knowledge in new and different ways. An individual's capacity for adapting to job changes and transferring prior skills, knowledge, abilities, and attitudes to new applications can have significant impact on their success in a new job.

It was the purpose of the follow-up study reported here to examine the impact of evaluating one's transferable skills on one's subsequent employment experiences. Persons who had engaged in a career advising program at Columbia University were the subjects of the study. This program guides participants through a self-analysis process in which they identify the skills they have used previously in a variety of life situations, which have given them a sense of personal success and satisfaction. They are then encouraged to base their career directions and job-seeking efforts on these satisfaction-producing characteristics. Generally speaking, the program shares the philosophic approach of a growing number of popular authors and career counseling practitioners.

Data was collected from these past participants on three principal measures. One was a measure of the extent to which they were utilizing their skills in their employment (Skill Utilization Index). Another was a measure of their satisfaction with the use of their abilities, and the final one was a measure of their general job satisfaction. The latter two are measures of the Minnesota Satisfaction Questionnaire (MSQ). Additional measures included the respondents' satisfaction with the remaining intrinsic and extrinsic aspects of their jobs defined by the MSQ, their employment income, and their occupational status.

This past-participant group was compared against a non-participating peer group of similar age and academic background, and against a group of persons who entered the program during the academic year coinciding with the period of the study. These three thus comprised a post-program, a non-program, and a pre-program group, respectively.

Findings revealed no statistically significant differences between the post-participants and non-participants on the primary measures, even though the former had achieved a somewhat higher occupational status. There were, however, appreciable differences between the pre- and post-groups on virtually all the measures.

These findings indicate that although those who elected the program were greatly helped by it, such a program may not benefit everyone equally. Whatever the reasons for choosing to make use of such a service, they may be essential for success. It must also be recognized that the program's basic approach is one that is becoming increasingly well known; hence, it cannot be assumed that those who never formally entered the program (that is, the non-participating group) were unaware of its approach and never benefitted from its use.

The study indicated that those who elected the program did not appreciate their own versatility and the marketability of their skill attributes. Until this experience, they conceived of their skills and abilities in narrow, specialized, and conventional terms. The skill analysis experience modified and redirected their career aspirations based on new perceptions of their skill attributes and the importance of these for their self-fulfillment. Findings also suggested that the composite of the skills of those who elected the program were somewhat different than those of their peers, and that their areas of strength needed opportunities to be creative, verbal, and personal in order to be gratified. Further, indications were that there is somewhat less market demand for these abilities than for some others. If this is the case, then the search for satisfying occupations on the part of such persons needs to be consciously directed and well informed.

The self-analysis process employed by the program seems to be an effective intervention. It encourages one to think of one's employable skills in terms of a rather broad but powerful set of skill attributes. It then encourages the conceptualization of occupational requirements in these terms, and provides motivation to search for an opportunity to more fully utilize one's particular skills. The data obtained in this study strongly indicate that those who have elected to use the program have subsequently experienced employment which has allowed them to use their skill attributes more fully than before, and has provided increased intrinsic and extrinsic rewards at the same salary levels as their peers.

Most of those who had engaged in the program had done so at a point in their lives when their academic preparation was essentially complete. The identification of one's skill attributes at a much earlier point in one's educational development would seem to be a much more powerful intervention, helping to inform one's educational and vocational decisions.

Finally, a weakness of the approach as it now exists is that although the transferable skills of an individual are identified and made the focus of subsequent job-finding activities, no mechanism exists for describing jobs in the same terms. That is, there is no readily available resource that adequately describes jobs in terms of such skill attribute requirements as are identified in the program. Thus, the success of individuals who follow such an approach is dependent, to a large degree, on both the ability and willingness of prospective employers to evaluate the requirements of their firms' positions in the same terms of reference.

INTRODUCTION

Background

Americans today face a complex and dynamic world of social, economic, and technological change. Substantial occupational mobility seems to be one of its characteristics. A recent study reported that roughly one-third of all American workers changed their jobs over a five-year period; only 47 percent of the men and 40 percent of the women employed in 1965 had the same occupation five years later (Sommers & Eck, 1977). These significant national statistics attest to the persistent need for effective education and work programs to help students become adaptable and flexible adults, better able to apply their capabilities and perform effectively in a variety of life and work settings. Attention needs to be directed to questions of what schools can do for all students to better prepare them, not only for jobs, but for work careers characterized by change, and to improve their chances of adapting when occupational change is desirable or necessary.

As a result of a variety of approaches to better understand the nature of transferable skills and the process of skill transfer, a number of perspectives have been gained. Those which are particularly relevant, and which contributed to the decision to pursue the study reported here, are outlined in this section.

One of the concepts emerging from prior studies is the strong suggestion that occupational adaptability may be dependent largely upon prior development of ability to use one's acquired capabilities under a range of different performance contexts and conditions. Skills are transferable after they first have been learned and subsequently have been applied in performance situations. The broader the scope and number of applications of the skill, the greater the potential for transfer of that skill to a new performance situation.

Essential facilitators of the transfer process apparently include both individual *awareness* and *motivation.* With regard to awareness, it is clear that individuals must recognize the nature of the skills they possess before they can "sell" them effectively. Individuals whose understanding of the skills they possess is limited to the tasks they have learned to perform ("occupational skills") in formal training programs or in previous jobs—skills such as typing business letters and maintaining files—are not likely to see themselves as candidates for other than narrowly defined types of work. Conversely, if they come to the realization that they possess—for example—communication, interpersonal, and organizational skills, this awareness can lead to a greatly enlarged view of realistic occupational prospects.

With regard to the role of motivation in the process of skill transfer, it is not entirely clear why we, as individuals, seem to selectively develop our abilities. It is apparent, however, that most of us enjoy using certain of our abilities more than others. Individual experience has taught us that the use of these provides personal satisfaction and fulfillment. These experiences motivate us to choose, where possible, situations which require the use of those abilities which satisfy, rather than some other abilities we may also possess, which do not.

A finding of previous work has been that, while there is substantial agreement as to the nature of skills that transfer, there also is a fundamental need for better assessment procedures. This need was uniformly recognized by employers represented in conferences on the recognition and utilization of transferable skills in employment practice (Wiant, 1977). Without either skill assessment techniques or skill reporting mechanisms, the value to an employer of an employee's transferable skills is largely a moot issue.

The DIG Program

Attempts have been made to identify programs of various kinds with an underlying concern for the transferability of acquired skills (Miguel, 1977). An examination of the features of such programs, it was hoped, would provide clues to innovative and effective practices or techniques. One program found to be of interest was Columbia University's "Deeper Investigation of Growth" (DIG), a program which shares much of the general philosophy of Haldane, Crystal, Bolles, and others. DIG requires participants to engage in a guided self-analysis process termed "success factor analysis" in which personal success factors are identified (Gummere, 1972). These factors consist of human abilities which have a wide range of usefulness. Bolles refers to them as skills, and has provided an excellent discussion of their nature (Bolles, 1978, p. 137f). In this report, they will be referred to interchangeably as transferable skills, traits, characteristics, aptitudes, or talents.

In the DIG program, these skills form the basis for the preparation of personal resumes, for use in subsequent job search activities. Participants also receive counseling as to the types of jobs and job activities for which their skill profiles are particularly well suited, as well as suggested techniques for use in the job search.

The DIG program is a non-credit, voluntary program, offered to Columbia graduates and undergraduates by the Career Advising Division of the Office of University Placement and Career Services. Completion of the program involves approximately six hours of small group sessions and three to six hours of individual counseling. It has been used by persons with a great diversity of backgrounds, talents, education, and prior work experience. Some who use it are about to complete their academic programs, while others have been out and working for some time. Because of this diversity and the program's history of approximately ten years of operation, DIG files offered a rich source of research data. Although informal feedback suggested that many DIG participants had established satisfying careers as a result of the program, no systematic follow-up of DIG participants had been conducted.

The DIG program was of particular interest and significance for the further study of transferable skills owing to its focus upon producing an *awareness*, by those participating, of their own, particular "*motivated* skills."[1] The self-analysis process employed in DIG involves examination of one's satisfaction-producing life experiences, including but not limited to those in education and work. By means of this analysis, clues emerge as to the nature of the aptitudes brought into play in the selected life situations, which were responsible for the satisfaction derived. It is expected that each individual's aptitudes will then become the basis for his/her subsequent search for suitable employment.

Additional description of the DIG process is contained in Appendix F.

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[1] The terms "success factor analysis" and "motivated skills," used to describe the DIG approach, are attributed to Bernard Haldane.

Objectives of the Study

Those who have engaged in the self-analysis process have been observed by DIG counselors to have been greatly exhilarated by it. Immediate improvement in participants' self-esteem and career expectations have been generally noted, along with revitalization of purpose. It has not been clear, however, whether there have been lasting effects upon participants' career directions or their success in finding employment for which their motivated skills best suit them. Broadly stated, it was the purpose of this study to provide answers to this question.

A major objective of the DIG program is to increase the ability of program participants to transfer their skills to future employment. Concomitant increases in their "job satisfaction" are also expected. This is because DIG's basic thrust is to identify motivated skills—talents and abilities which have afforded personal enjoyment and satisfaction when exercised in previous life experiences. Therefore, the meaningful employment of these talents in the labor market is expected to contribute significantly to increased job satisfaction.

In approaching the study reported here, it was hypothesized that when individuals become aware of the transferable skills they possess, this discovery and the accompanying motivation it produces will have positive effects on their subsequent employment experience. Informal feedback from past participants in DIG, and from other similar programs, indicated this to be true even for the highly educated.

The specific objective of this study was therefore to determine whether persons who complete a skill analysis and reporting process increase their *skill utilization* and *job satisfaction* in subsequent employment. The DIG success factor analysis, and resume reflecting it, were the specific "skill analysis and reporting" process studied.

METHODS AND PROCEDURES

Study Samples

Data for this study were collected from three groups. The first group consisted of persons who entered the DIG program during the period of the study. The second group consisted of persons who had experienced the DIG treatment long enough ago for it to have influenced their careers. This was the "experimental" group. The third and final group was a control group, members of which had no previous association with the DIG program. Members of all three groups were alumni of Columbia University, New York.

Group I consisted of a sample of approximately 100 alumni selected from among those who entered the DIG program during the 1978-79 academic year. These represented those who entered the program following a period of non-casual, gainful employment. This group is referred to as the "pre-DIG" group.

Group II consisted of Columbia alumni who completed the DIG program at some time during the past ten years. There were approximately 400 persons in this "post-DIG" group.

Group III was the "control" group. It consisted of a sample of approximately 400 men selected from the 1978 edition of the Columbia College Alumni Directory (Columbia College is an all-male undergraduate college of Columbia University). The criteria for selection of this sample were that each member (1) lived in the United States, (2) graduated from college during approximately the same years as Group II, and (3) had *not* participated in the DIG program. This group is referred to as the "control" or "non-DIG" group.

Instrument

The questionnaire used in this study was constructed to obtain data on skill utilization, and on both intrinsic and extrinsic facets of job satisfaction. No single instrument was found to measure both skill utilization and job satisfaction. Hence the questionnaire used in the study required the use of project-developed materials along with a commercial instrument. The questionnaire contained five sections:

1. basic demographic descriptors
2. job and skill-related issues
3. skill utilization
4. job satisfaction
5. reaction questions (for post-DIG group members only)

Section 1

The first section consisted of demographic questions to obtain the following:

1. *Date of birth* — Both literature reviews (Thurman, 1977; Seashore, 1974) and studies (White, 1977; Hunt and Soul, 1975; Schwab and Heneman, 1977) have found either curvilinear or linear relationships between age and job satisfaction. This would be a centralized variable in either a partial-correlation or two-way factor analysis.
2. *Tenure* — Date of graduation with highest degree, years in present job, and years in the labor market are all measures of tenure. The issue of tenure in the labor market has been shown to positively influence job satisfaction (Hunt and Soul, 1975). There is some disagreement about the nature of the relationship (linear/non-linear) and the strength of the relationship.
3. *Educational area and level of attainment* — A follow-up study by Parrish and Duff (1975) has demonstrated well the effects of both area and level of educational attainment, indicating that certain major educational areas consistently experience both high dissatisfaction and high underutilization. On the other hand, their study would also support the contention that underutilization and dissatisfaction decrease as a function of education level and attainment.
4. *Occupation and income* — Despite the fact that some restriction in the range of occupations was expected from a group such as the graduates of Columbia College, there is evidence (Thurman, 1977; Seashore, 1974) that job satisfaction varies among and within occupations.
5. *Physical characteristics* — Although relatively few disabled persons, women, and minorities have participated in DIG, these items were included to permit examination of differential effects.

Section 2

The second section consisted of items regarding the respondent's career status, qualifications, and individual perception of the employment situation. These questions required only a yes/no response.

Section 3

Section 3 was perhaps the most unique section of the questionnaire. There is little evidence in current literature that an individual's perception of his/her skill utilization has been an interest of researchers. However, a number of studies (e.g., Thurman, 1977; Seashore, 1974) have found that large numbers of people do *not* believe that their skills are put to maximum or proper utilization, as evidenced by the large number of respondents in the Parrish and Duff study (1975) who considered themselves "underemployed."

According to the DIG program perspective, each individual has a unique set of talents and attributes. These are skills or traits that the individual has enjoyed using and has been successful in using. Study participants were asked to develop a list of six such skills. The six were to be selected directly from a suggested list, or similar skills could be substituted. (The suggested list was compiled from several sources, including a list supplied by DIG staff members.) Respondents were then to rank order the six selected skills, from most to least important to themselves. After ranking the six skills, they were asked to rate each one as to its utilization on their present job. A skill not utilized was rated 0. One most highly utilized was rated 7. A rating of 1 represented minor utilization under unusual circumstances.

Section 4

Section 4 consisted of the long form Minnesota Satisfaction Questionnaire (MSQ). The MSQ consists of 100 questions that create 23 scales of job satisfaction which include 11 intrinsic and 9 extrinsic measures, as well as an overall "general" satisfaction measure. One of the intrinsic measures of particular reference to this study was the scale reflecting satisfaction with the utilization of one's abilities (Weiss, et al., 1967).

Section 5

This section was an addendum, used only with former DIG participants (i.e., Group II). It consisted of a number of questions to obtain DIG participants' evaluation of the skill resume method of presenting themselves to an employer, the indirect method of job search, and the relative utilization of their skills. This section contained both standardized and open-ended response options to questions concerning critical incidents of success and failure.

Pretesting of the questionnaire indicated that the questions were understandable, and that 15-20 minutes were required by the average respondent to complete the questionnaire.

The questionnaire used in the study is reproduced in Appendix A.

Data Collection

Questionnaires were administered to the pre-DIG group, prior to their actual participation in the DIG program, by members of the DIG program (i.e., Career Advising Division staff). The questionnaires were then forwarded to the project staff for data reduction and analysis.

Members of the post-DIG and control groups received the questionnaire by mail. Names and addresses of the post-DIG group were supplied by the Career Advising Division from their file of resumes while those of the control group were obtained from the 1978 edition of the Columbia College Alumni Directory. Accompanying each questionnaire was a letter of introduction and explanation, printed on the Columbia University letterhead and signed by Mr. R. M. Gummere, Jr., Director of the Career Advising Division. Postpaid return envelopes were provided for return of the questionnaires to the National Center project staff. A return postcard was also enclosed, on which respondents were asked to supply their name and mailing address. Since all questionnaires were returned anonymously, the postcard permitted maintenance of records on who had responded. Respondents also indicated whether they would like a copy of the survey results.

Four weeks later, non-respondents received a duplicate mailing. A third and final mailing followed to those who still failed to respond. For this final mailing, a different letter was used, hand-signed, and mailed using postage stamps in lieu of metered mail. Some time later, phone calls were made to some of those who had not responded, and another questionnaire sent to those who requested it.

The approximate response to the various mailings was as follows, where *n* is the size of the group reached by the survey:

	Group	
	Post-DIG	*Control*
n (effective)	331	313
Response (%) to:		
First mailing	25	30
Second mailing	25	20
Third mailing	12	7
Total (%)	62	57

The final response rates achieved were gratifying in view of the somewhat complex nature of portions of the questionnaire. Concerns over possible reactions to the skill selection, ranking, and rating requests of Section 3 did not appear warranted. This information was provided by nearly all (98%) of those responding. The only portion of the questionnaire that evoked some adverse reaction was Section 4, which contained the MSQ questions. A number of respondents were offended by the wording of some of the questions and by their redundancy. Others felt that the multiple response options provided were not always appropriate.

Data Available for Analysis

The effective size of the groups, that is, those whose mail was presumed to be either delivered as addressed or forwarded within the U.S.A., was as shown above. Also shown are the percentages of those who responded. A limited number of non-respondents contacted by telephone did not appear to differ demographically from the respondents.

Among the questionnaires returned were a number not used in the study for one of two reasons. First was the omission of either extensive or vital demographic information, such as age. Another was a lack of occupational experience on which to report. Whereas there were very few of the former, there were a number—particularly among the control group—of graudate students who had continued their educational programs essentially without interruption. Hence these were unable to respond to the basic concerns of the study. A larger number of the control (non-DIG) group were in this situation, partly because of their choice of occupational preparation (predominantly medicine and law) and partly because of their somewhat lower age, as noted in the analysis section of this report. The resulting number of usable responses is reported in Table 1.

Design of the Analysis

A number of key assumptions underlie the DIG program and formed the basis for this analysis. One assumption is that many people do not know a great deal about their own skills and abilities, and this lack of self-knowledge and self-understanding is a barrier to finding appropriate employment and effective skill utilization. Related to this is the assumption that skill utilization is an important variable affecting general job satisfaction.

It follows from these assumptions that the more one knows about one's skills and abilities, the better are one's chances of finding employment that requires the use of those skills and abilities. Consequently, the better one's chances of experiencing job satisfaction. Alternatively, job satisfaction should be lower for individuals who do *not* know a great deal about their own strengths, and hence do not consciously seek those employment situations which would draw upon these strengths to a significant extent.

The focus of the DIG program is on skill analysis and reporting: on helping participants identify and gain a better understanding of their most important and most highly motivated skills and abilities, and on helping them better communicate these skills and abilities to appropriate prospective employers. Thus, it seemed reasonable to suppose that, on the average, DIG participants would achieve greater skill utilization and be more satisfied with their jobs than non-participants.

This study was an attempt to test these basic assumptions. It was *not* intended to look at the independent effects of the DIG success factor analysis process, resume preparation, and job campaign methods, but rather to examine their combined effect on three dependent variables: (a) utilization of skills in the job, (b) general job satisfaction, and (c) satisfaction with abilities utilization.

There were no *a priori* reasons to suspect that the groups would differ significantly on any of the background characteristics (e.g., age, years of employment, years in present job, level of education, income, etc.). However, if significant differences were observed among the groups, (a) these differences would need to be considered in the interpretation of the findings, and (b) additional analyses and group comparisons might be necessary to better estimate possible differential effects of or interactions with DIG participation.

The key hypotheses to be tested were:

1. DIG participants (Group II) have a higher mean score than non-participants (Group III) on a measure of the perceived significance of the job *utilization of skills.*
2. DIG participants have a higher mean score than non-participants on the *general job satisfaction* scale of the MSQ.
3. DIG participants have a higher mean score than non-participants on the *ability utilization satisfaction* scale of the MSQ.

If any of these hypotheses were accepted, a number of additional hypotheses would then need to be tested in order to better estimate the possible effects of DIG participation.

To be able to attribute any significant differences between the groups to the DIG program, it was further necessary to determine whether the DIG participants would have been different from the non-participants on the dependent variables even if they hadn't participated in the DIG program. In other words, are the DIG participants different from non-DIG participants for some reasons unrelated to the DIG program?

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To answer this question directly would have required both pre- and post-DIG scores on the dependent variables for the same group of people. Since scores for the post-DIG group obtained prior to their DIG experience were obviously not available, an alternate approach was used. The basic assumption involved in the approach was that those currently entering the DIG program are not systematically different than their predecessors, and that they enter the DIG program today for essentially the same reasons as participants of past years.

Accordingly, pre-DIG (i.e., Group I) scores would be compared to non-DIG (control) scores on each of the dependent variables. Differences would tend to support a conclusion that DIG participants are somehow systematically different from non-participants. Because significant differences were not anticipated, the hypotheses concerning these comparisons were stated in null form:

4. There is no significant difference between the pre-DIG (Group I) and the non-DIG group (Group III) mean scores on a measure of the perceived significance of the job *utilization of skills.*
5. There is no significant difference between the pre-DIG and the non-DIG group mean scores on the *general job satisfaction* scale of the MSQ.
6. There is no significant difference between the pre-DIG and the non-DIG group mean scores on the *ability utilization satisfaction* scale of the MSQ.

In addition, scores of the pre-DIG group were to be compared to those of the post-DIG group on each of the dependent variables. If there were no significant differences between these two groups in background characteristics, then any significant differences on the dependent measures could be attributed to the combination of DIG participation and post-DIG employment experience. The hypotheses to be tested were:

7. The post-DIG group (Group II) has a higher mean score than the pre-DIG group (Group I) on a measure of the perceived significance of the job *utilization of skills.*
8. The post-DIG group (Group II) has a higher mean score than the pre-DIG group (Group I) on the *general job satisfaction* scale of the MSQ.
9. The post-DIG group (Group II) has a higher mean score than the pre-DIG group (Group I) on the *ability utilization satisfaction* scale of the MSQ.

In summary, the hypotheses anticipated findings which would support the view that three major, skill-related variables are positively affected by the DIG intervention. These positive effects would be evidenced by one of the following sets of conditions:

Condition	*Pre-DIG Scores*	*Post-DIG Scores*
A:	Same as Non-DIG	Higher than Non-DIG
B:	Lower than Non-DIG	Same as Non-DIG

The major dependent variables for this study (subjects of the preceding hypotheses) were skills utilization and job satisfaction. As noted, the two scales of the MSQ of particular importance were General Job Satisfaction and Satisfaction with Ability Utilization, respectively.

Skill utilization, or the significance of an individual's skills to his/her job, was computed as a "Skills Utilization Index" (SUI):

$$\mathrm{SUI} = \frac{\Sigma R}{NP}$$

where ΣR is the sum of the self-ratings for all skills rated, N is the number of skills rated (a maximum of six), and P is the scale maximum (seven in this case). Thus, the index can range in value between zero and one.

The Skill Utilization Index provides a standardized single measure by which either individuals or groups can be readily compared with respect to an unrestricted range of talents and personal attributes. It can be considered analogous to the familiar Dow-Jones index of leading market indicators in that it is a single index reflecting an overall condition, in this case indicating how well an individual's skills—regardless of how many he/she possesses—are being utilized in employment. It is an "index of leading indicators" in that the ratings of only the most important skills are to be used in computing it.

The Skill Utilization Index was not intended to be a direct measure of satisfaction, but was expected to be related to the Ability Utilization scale of the MSQ. Ability utilization contributes to job satisfaction and hence is one of the 20 contributing factors recognized by the MSQ; it provides an indication of the respondents' *satisfaction* vis-a-vis ability utilization. It does not identify those abilities, nor does it provide any measure of their utilization's significance.

Other variables used in the study to supplement the primary dependent variables included income, occupational status, and the various remaining scales of the Minnesota Satisfaction Questionnaire (MSQ). Income was defined as occupational income, and occupational status was coded in accordance with a scaling system developed to study the nation's occupational distribution and trends, using census data. The occupational status codes reflect both educational attainment and income (Nam et al., 1975).

The MSQ provides scales for each of the following intrinsic satisfactions:

abilities utilization
achievement
activity (keeping busy)
authority
creativity
independence (working alone)
moral values
responsibility
social service
social status
variety

Extrinsic elements include:

- advancement
- company policies and practices
- compensation
- co-workers
- security
- supervision (human relations)
- supervision (technical)

A composite score was also computed for intrinsic and for extrinsic job satisfaction.

ANALYSIS OF FINDINGS

Group Demographic Comparisons

The hypotheses defined for the study were predicated on an assumption that the three study groups would be comparable with regard to their demographic characteristics – independent variables such as age, academic achievement, and employment experience. Findings did not support this assumption. Consequently, these background differences needed to be considered in interpreting the group comparisons on the dependent variable scores (i.e., skill utilization and job satisfaction). Demographic comparisons between the groups are reported in Table 1 and discussed below.

Age – The non-DIG (i.e., control) group was significantly younger than the other two groups, although it was drawn as a sample of those believed to be of approximately the same age as the post-DIG group.

Sex – Up-to-date name and address information on non-DIG alumni available to the project was contained in a just-released directory of the graduates of Columbia College, Columbia University's all-male undergraduate college.

Degree level – The non-DIG group was characterized by a much higher percentage of doctorate level degree-holders, and comparably fewer persons at the masters level.

Age vs. degree level – In contrast to the other two groups, members of the non-DIG group had pursued their education without interruption (cf. "years since highest degree" with "years working").

Academic preparation – The distribution of group members according to academic areas of preparation was similar for the pre- and post-DIG groups, both showing a heavy concentration in the "academic" areas. By contrast, the non-DIG group had focused on law and medicine.

Employment – Years working and years with present employer were not significantly different for the pre- and post-DIG groups, but the non-DIG group had significantly fewer years of employment.

Occupational status and income – Mean income differences between the three groups were all significant. The occupational status of the pre-DIG was also significantly below that of the other two groups.

In summary, those in the pre- and post-DIG groups were characterized by academic preparation in non-occupationally focused disciplines, whereas those in the non-DIG group concentrated on the medical and legal professions. The non-DIG group was also represented by a much higher percentage of degree-holders at the doctorate level, but these individuals were nearly all in the medical and legal fields. In addition, the group's formal educational progress was continuous and uninterrupted; thus, its advanced degree-holders were younger. Finally, it was all-male. Thus, demographically speaking, the pre- and post-DIG groups were quite similar, while both contrasted with the non-DIG group on a number of characteristics.

Table 1

Group Demographics

	Group *I*	 *II*	 *III*
	Pre-DIG	*Post-DIG*	*Non-DIG*
Size of group (usable responses):	76	200	145
Average age:	33	33	30
Sex (percent males):	45	72	100
Race: (percent of group)			
White	87	91	92
Black	3	3	1
Other	10	6	6
	100	100	100
Degree level: (percent of group)			
Baccalaureate	32	36	30
Masters	49	49	28
Doctorate	20	16	42
	100	100	100
Average age, by degree level:			
Baccalaureate	28.5	29.5	29.5
Masters	35.2	33.3	30.3
Doctorate	35.7	37.2	30.9
Areas of academic preparation: (percent of group)			
Medicine and law	4	7	42
Education, business, and engineering	9	20	18
Physical science and math	7	4	7
Academic (social and behavioral science, arts, humanities)	80	69	32
	100	100	100
Years since highest degree:	4.1	6.0	5.0
Years since DIG:	–	4.1	–
Years working (full time, non-seasonal):	7.8	7.0	5.0
Years with present or most recent employer:	3.4	2.8	2.8
Presently employed (percent):	47	88	93
Self-employed (percent):	8	14	15
Occupational status score:	81	89	91
Annual employment income (thousands)	$12.1	$18.0	$22.4

Group Comparisons on the Dependent Variables

The hypotheses concerning the dependent variable comparisons for the pre- and post-DIG groups were strongly supported by the data, as shown in Table 2. First listed in the table are the group demographic variables, income and occupational status, followed by the three primary dependent variables (skill utilization index and two job satisfaction scales). Following these dependent variable scores are scores on the remaining job satisfaction scales of the MSQ. The post-DIG group scores on skill utilization, satisfaction with the utilization of their abilities in their work, and general job satisfaction were all significantly higher than those of the pre-DIG group. In addition, their income, occupational status, and satisfaction scores on each of the MSQ scales (consisting of 11 intrinsic and 9 extrinsic factors) were all significantly higher. Since the two groups' background characteristics were also comparable (as previously noted), the assumptions underlying these hypotheses were supported, and the comparisons of their dependent variable scores were not further qualified.

Hypotheses concerning the non-DIG group's dependent variable scores were not, however, supported. Comparisons between them and the post-DIG group's are also shown in Table 2.

The non-DIG group was found to be experiencing significantly higher skill utilization and satisfaction with the use of its abilities. Although its general satisfaction was not significantly higher than the post-DIG group's, the difference approached significance as a result of the non-DIG group's somewhat higher overall intrinsic job satisfaction. The two groups' extrinsic satisfactions were comparable in spite of the fact that the non-DIG group's reported average annual income (earnings) was $4400 higher than the post-DIG group's.

Sub-Group Comparisons on the Dependent Variables

Because of the unexpected nature of these findings, attention was turned to possible explanations which could be supported by the data. As already noted, the non-DIG group differed considerably from the post-DIG group demographically. Particularly striking were their age and academic background differences. With regard to age, the non-DIG group contained no one older than 35. With regard to areas of academic preparation, the preponderance of those in the pre- and post-DIG groups held degrees in other than the medical and legal areas (96 percent and 93 percent, respectively) which, by contrast, accounted for 42 percent of the non-DIG group (see Table 1). It seemed logical to suspect that these background differences might account for the unexpected results. Therefore, further comparisons between the non-DIG group and either of the other groups were made excluding doctors, lawyers, and those over 35, as discussed below.

Post-DIG (Group II) vs. Non-DIG (Group III)

The demographics of these groups after excluding those over 35 years of age, and those prepared for the medical or legal professions, are tabulated in Table 3. None of the intergroup comparisons shown in the table reveal significant differences in the dependent variable scores. Thus, the hypotheses to the effect that these experiencing DIG would be utilizing their skills more highly and would have greater job satisfaction as a consequence, were still not supported by the data. The two groups appeared essentially equivalent on every measure employed with the exception of occupational status, which is a construct based upon the individual's stated occupation. On this measure, the post-DIG group excelled.

TABLE 2

Comparisons Between Groups*

	Means & Standard Deviations			*t-test Comparisons*			
				I vs. II		*II vs. III*	
	I	*II*	*III*	*t*	*p*⟨	*t*	*p*⟨
Age	33.2 8.6	32.6 7.4	30.3 3.3	0.57	0.29	3.9	0.000
Years since highest degree	4.1 6.8	6.0 5.4	5.0 2.9	–2.27	0.01	2.3	0.01
Years in the work force	7.8 6.7	7.0 6.3	5.0 3.5	0.85	0.20	3.8	0.000
Years with present employer	3.4 3.5	2.8 3.0	2.8 2.0	1.08	0.14	0.14	0.45
Occupational Status	81 12	89 9	91 10	–5.06	0.000	–0.95	0.17
Reported gross annual income (thousands of dollars)	12.1 7.8	18.0 9.8	22.4 11.7	–4.77	0.000	–3.5	0.000
Skill Utilization Index	0.51 0.22	0.66 0.18	0.70 0.16	–5.16	0.000	–2.4	0.01
Satisfaction with Ability Utilization	10.4 5.9	15.6 6.0	16.8 5.3	–6.39	0.000	–1.8	0.04
General Job Satisfaction	24.3 7.1	30.6 6.6	31.8 6.0	–6.38	0.000	–1.5	0.07
Satisfaction with Achievement	12.7 5.7	17.0 4.8	17.4 4.3	–5.68	0.000	–0.85	0.20
Satisfaction with Work Activity	12.8 5.3	17.6 4.9	17.3 4.3	–6.72	0.000	0.62	0.27
Satisfaction with Advancement Opportunity	8.3 4.3	13.6 5.8	14.8 5.0	–7.92	0.000	–2.1	0.02

Satisfaction with Authority	11.9 4.6	14.5 4.7	15.6 4.1	–3.91	0.000	–2.4	0.009
Satisfaction with Company Policy	9.9 3.7	12.3 4.7	13.0 4.0	–4.22	0.000	–1.4	0.09
Satisfaction with Compensation	11.3 5.0	13.8 5.7	14.4 5.1	–3.52	0.001	–0.89	0.19
Satisfaction with Coworkers	14.9 5.2	16.4 4.0	16.5 4.0	–2.27	0.025	–0.16	0.44
Satisfaction with Creativity	12.1 5.9	16.0 5.3	16.2 4.8	–5.01	0.000	–0.28	0.39
Satisfaction with Independence	13.9 5.5	16.5 4.4	16.1 4.1	–3.53	0.001	0.81	0.21
Satisfaction with Moral Values	16.4 5.2	17.7 4.2	18.3 4.0	–1.86	0.065	–1.4	0.09
Satisfaction with Recognition	12.3 5.7	15.3 5.1	15.1 4.4	–3.92	0.000	0.37	0.36
Satisfaction with Responsibility	13.1 5.2	16.5 4.7	16.9 3.9	–4.93	0.000	–0.65	0.26
Satisfaction with Security	10.9 6.0	15.0 5.5	16.2 5.1	–5.10	0.000	–2.04	0.02
Satisfaction with Social Service	13.5 5.9	15.7 5.0	16.2 4.6	–2.80	0.006	–0.91	0.18
Satisfaction with Social Status	10.7 5.3	14.7 5.1	15.2 4.4	–5.44	0.000	–0.99	0.16
Satisfaction with Supervision, Human Relations	11.6 5.6	14.8 5.4	14.9 4.7	–4.12	0.000	–0.24	0.41
Satisfaction with Supervision, Technical	12.4 5.6	15.1 5.1	15.7 4.4	–3.56	0.001	–1.08	0.14

Table 2, continued

	Means & Standard Deviations			*t-test Comparisons*			
				I vs. II		*II vs. III*	
	I	*II*	*III*	*t*	*p<*	*t*	*p<*
Satisfaction with Variety of Work Duties	12.0 5.3	16.2 4.6	16.1 4.5	–6.03	0.000	0.34	0.37
Satisfaction with Working Conditions	12.6 5.6	15.5 5.2	15.5 4.8	–3.87	0.000	0.00	0.5
Intrinsic Job Satisfaction	12.7 4.4	16.0 3.7	16.6 3.3	–5.55	0.000	–1.55	0.06
Extrinsic Job Satisfaction	11.6 3.5	14.6 3.7	15.1 3.2	–6.11	0.000	–1.13	0.13

* I: Pre-DIG Group
II: Post-DIG Group
III: Non-DIG Group

TABLE 3

Comparisons Between the Non- and Post-DIG Groups for Non-Professionals* Under Age 36

		Group		*Statistic Test*	
Variable		*Non-DIG*	*Post-DIG*	*t*	*p*
Age	$\bar{x}$	29.6	29.4	−0.43	0.33
	s.d.	3.0	3.6		
Years since highest degree	$\bar{x}$	5.3	4.7	−1.23	0.11
	s.d.	3.2	3.0		
Years in the work force	$\bar{x}$	5.1	5.1	−0.03	0.49
	s.d.	2.9	3.5		
Years with present employer	$\bar{x}$	3.0	2.5	−1.5	0.07
	s.d.	2.3	2.2		
Occupational Status	$\bar{x}$	85	88	2.3	0.01
	s.d.	10	10		
Reported gross annual income (thousands of dollars)	$\bar{x}$	16.8	17.2	0.32	0.38
	s.d.	8.1	9.6		
Skill Utilization Index	$\bar{x}$	0.67	0.65	−1.08	0.14
	s.d.	0.16	0.18		
Satisfaction with Ability Utilization	$\bar{x}$	15.5	15.1	−0.43	0.34
	s.d.	5.7	5.9		
General Job Satisfaction	$\bar{x}$	30.9	30.3	−0.60	0.28
	s.d.	6.5	6.4		
Satisfaction with Achievement	$\bar{x}$	16.8	16.7	−0.19	0.42
	s.d.	4.3	4.6		
Satisfaction with Work Activity	$\bar{x}$	17.0	17.6	0.93	0.18
	s.d.	4.2	4.7		
Satisfaction with Advancement Opportunity	$\bar{x}$	14.0	13.8	−0.29	0.39
	s.d.	5.2	5.8		
Satisfaction with Authority	$\bar{x}$	15.5	14.1	−2.15	0.02
	s.d.	4.6	4.5		
Satisfaction with Company Policy	$\bar{x}$	12.9	12.2	−1.07	0.14
	s.d.	4.4	4.8		
Satisfaction with Compensation	$\bar{x}$	13.8	14.0	0.23	0.41
	s.d.	5.6	5.5		

*Professionals here defined as those academically prepared for medicine or law.

Table 3, continued

Variable		Group		Statistic Test	
		Non-DIG	Post-DIG	t	$p<$
Satisfaction with Coworkers	$\bar{x}$	16.4	16.5	0.01	0.50
	s.d.	4.1	4.0		
Satisfaction with Creativity	$\bar{x}$	16.0	15.7	−0.38	0.35
	s.d.	5.1	5.2		
Satisfaction with Independence	$\bar{x}$	15.7	16.2	0.88	0.19
	s.d.	4.2	4.4		
Satisfaction with Moral Values	$\bar{x}$	18.1	17.7	−0.84	0.20
	s.d.	4.0	4.0		
Satisfaction with Recognition	$\bar{x}$	14.7	15.0	0.44	0.33
	s.d.	4.4	5.2		
Satisfaction with Responsibility	$\bar{x}$	16.6	16.4	−0.37	0.36
	s.d.	4.1	4.6		
Satisfaction with Security	$\bar{x}$	15.7	15.5	−0.20	0.42
	s.d.	5.4	5.1		
Satisfaction with Social Service	$\bar{x}$	15.4	15.3	−0.13	0.45
	s.d.	4.4	4.9		
Satisfaction with Social Status	$\bar{x}$	14.2	14.4	0.28	0.39
	s.d.	4.5	5.0		
Satisfaction with Supervision, Human Relations	$\bar{x}$	15.2	14.9	−0.37	0.36
	s.d.	5.0	5.6		
Satisfaction with Supervision, Technical	$\bar{x}$	15.4	15.1	−0.37	0.36
	s.d.	4.5	5.1		
Satisfaction with Variety of Work Duties	$\bar{x}$	15.6	16.1	0.62	0.27
	s.d.	5.0	4.6		
Satisfaction with Working Conditions	$\bar{x}$	15.9	15.4	−0.75	0.23
	s.d.	5.0	5.3		
Intrinsic Job Satisfaction	$\bar{x}$	16.1	15.7	−0.73	0.23
	s.d.	3.4	3.6		
Extrinsic Job Satisfaction	$\bar{x}$	14.8	14.7	−0.20	0.42
	s.d.	3.6	3.6		

An important remaining demographic difference that needed to be considered was that of the sexual make-up of the groups, since the post-DIG group consisted of 25 percent females whereas the non-DIG group was exclusively male. Excluding the post-DIG women from the above comparisons revealed no additional differences. Neither did the post-DIG women differ from the non-DIG group (all men) on the primary variables, although the women had higher occupational status (90 versus 85).

Pre-DIG (Group I) vs. Non-DIG (Group III)

The results of comparing the post-DIG with both the pre- and non-DIG groups have been presented. In accordance with expectations, the post-DIG group showed significantly higher scores than the pre-DIG group on the primary dependent variables, as well as on other indicators of job success. Contrary to expectations, however, the post-DIG group did not also outperform the non-DIG group. Even when comparisons were limited to those of comparable age and academic preparation, differences between group scores were not statistically significant.

From these results, it followed that the pre-DIG group should have lower scores than the non-DIG group, and this proved in fact to be the case. Thus, the hypotheses concerning these two groups were not supported. In other words, the pre-DIG group—contrary to expectations—was not generally representative of those who had not experienced DIG. The pre-DIG group appeared to be a special group.

Men vs. women

There were no women in the non-DIG group against which the women of the other two groups might be compared; however, it was of interest to compare the scores of the latter with those of the men in their respective groups.

Women in the pre-DIG group were about six years older (36 vs. 30) and had worked about two years longer than their male counterparts. However, there were no differences between them as to skill utilization, various measures of job satisfaction, income, or occupational status.

The post-DIG women were also older than the men in their group (35 vs. 32) but had not worked significantly longer. Their scores on the primary dependent variables were equivalent to the men's, but they were earning about $4000 less even though their occupational status was essentially the same. Understandably, therefore, they were less satisfied with their advancement opportunities, compensation, company policies, and job security.

Finally, separate comparisons were made for men and women. Both the men and the women in the post-DIG group had significantly higher scores on the major dependent variables than the men and women, respectively, in the pre-DIG group. Their scores were higher, as well, on most of the other measures of satisfaction, they earned more, and had higher occupational status. The superiority of the post-DIG group scores on selected variables are shown in Table 4 for both men and women, expressed in percent.

Accordingly, the data show that the DIG experience had been beneficial for both men and women, but differentially so, the men experiencing a greater increase in satisfaction with the utilization of their abilities, and in income, than the women.

TABLE 4

Superiority of Post-DIG to Pre-DIG Scores, for Both Men and Women

Variable	*Post-DIG Superiority (%)* *Men*	 *Women*
Skill Utilization Index	30	26
Satisfaction with Ability Utilization	59	44
General Job Satisfaction	27	25
Intrinsic Satisfaction	27	27
Income	58	24
Occupational Status	12	9

TABLE 5

Skill Utilization Index as a Function of Time

Independent Variable	*Correlation and Regression Coefficients*					
	Pre-DIG		*Post-DIG*		*Non-DIG*	
	r	*b*	*r*	*b*	*r*	*b*
Age	–0.24	–0.014	(0.13)	0.0067	0.19	0.010
Years since highest degree						
Years working			0.18	0.0090	0.25	0.014
Years with employer						
Years since DIG	N/A	N/A	0.25	0.016	N/A	N/A

r = Pearson's r

b = linear regression coefficient

$p < 0.05$ for values shown without parenthesis

$p < 0.1$ for values shown in parentheses

Blanks indicate $p > 0.1$

Trends in the Dependent Variables

Changes in the dependent variables were analyzed to determine the strength of their relationship to age and tenure, and their time-rates of change for the groups studied. These showed a modest correlation between age and skill utilization. Correlations were weaker between age and satisfaction with the utilization of abilities, and there was almost no significance to the correlations between general satisfaction and age, for any of the groups. Correlations tended to be negative for the pre-DIG group, positive for the post-DIG group.

The correlation coefficients (Pearson's r) and regression coefficients (b) for the relationship between Skill Utilization Index and various independent variables are listed in Table 5. The figures indicate that, generally speaking, skill utilization increased over time for the post-DIG and non-DIG groups, even though the relationship was not very strong. However, the rates of increase were different. Moreover, in the case of the post-DIG group, the rate of increase was much greater following the DIG experience. The linear regression coefficient for the skill utilization vs. years-since-DIG line (0.016) was more than double that of skills utilization vs. age.

Although income was not treated as a dependent variable in this study, analysis of the relation between the respondents' age and income was of interest. It is generally accepted that income increases with age until some time in mid-life. According to Haller and Spenner (1977), this plateau occurs roughly between the ages of 40 and 50 for occupations comparable to those of this study's respondents. Hence it was expected that age-income correlations for those under 36 would be reasonably strong and positive for these respondents. The results obtained are shown in Table 6.

TABLE 6

Income as a Function of Age

Group	*r*	*b*
Pre-DIG	(0.19)	256
Post-DIG	0.24	634
Non-DIG	0.47	1283

r = Pearson's r
b = linear regression coefficient
$p \leq 0.05$ for values shown without parenthesis
0.1 for values shown in parentheses

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Group Skill Profiles

Section 3 of the questionnaire (see Appendix A) asked respondents to name the six most important, satisfaction-producing skill attributes they possessed. A list of 43 such attributes was provided from which six might be selected. Respondents were then asked to consider the six identified attributes, and to rate the extent to which each one was being utilized in their jobs. The results of these selections and ratings are tabulated and discussed in Appendix E.

The skill attributes selected as most important showed that the groups considered themselves to be strongly creative, analytical, logical, articulate, and responsible. The data also showed that the post-DIG and non-DIG groups differed somewhat with regard to the skill areas they emphasized. Thus, the attributes of verbal communication, organizing, and of interpersonal skills generally, were more often selected by members of the post-DIG group, whereas the non-DIG group considered its major strengths to include logical thinking and analyzing.

Data on the utilization of the various skills characterizing the groups indicated that the jobs of these individuals provided more abundant opportunities for some skills than others. Characteristics most highly utilized included responsibility, verbal communication, and logical thinking. Among the least used were creativity, conceptualization, and interpersonal strengths. Although these results did not clearly differentiate between the groups, the data tended to show that the skill attributes most heavily utilized were more typical of the non-DIG than the post-DIG group (see Appendix E).

The above observations were based on comparisons between the non-DIG and the post-DIG groups only. The smaller size of the pre-DIG group, and the relatively large number of skills from which selections might be made (43), meant that the data from this group was too sparse to compare reliably with the others. However, the data available suggested that the pre-DIG group was more similar in its skill characteristics to the post-DIG group. Hence, observations concerning the post-DIG group's skill profile can be extended to include the pre-DIG group as well.

Discussion

The study focused on the testing of certain hypotheses concerning the skill utilization and job satisfaction of three groups of people of similar age and academic background. The three-group design (in lieu of a more time-consuming longitudinal study which could have provided the desired information more directly) was made to study the beneficial effects of the skills analysis and other processes of the DIG program. A basic assumption of the design was that the pre-DIG group—those entering the program during the period of the study—would be typical of those who have entered it in the past several years. That is, that the reasons for becoming a participant have remained basically unchanged for some time, and thus the program is attracting persons similar to those who have come into it in the past. This seemed a reasonable assumption in view of the continuity of the program's offerings, operations, and leadership.

While no direct data were gathered to verify this assumption, some verification was provided by the pre- and post-DIG groups' descriptive characteristics: age, length of work experience, areas and level of academic preparation, etc. In addition, analysis of the dependent variable scores of the two groups as a function of time (age, work tenure, time since DIG, etc.) provided some supportive evidence. It indicated that the pre-DIG group experienced downward trends with respect to these variables while the post-DIG group's was moderately increasing overall, with a history of much more rapid increase since its DIG experience (linear regression reported in Table 5, and associated discussion). These indications, while not as conclusive as desired (owing partly to the modest values of correlation obtained), taken together tend to support the assumption that the post-DIG members prior to their DIG experience were similar to the current pre-DIG members with regard to the use of their skills in work and their sense of satisfaction.

Accordingly, the findings of differences between the two groups' variable scores—which were both statistically significant and appreciable (Table 2)—supported the hypotheses that the intervention of DIG in the lives of the post-DIG group members had produced lasting effects on their skill utilization and job satisfaction.

However, the dependent variable scores obtained did not support the hypotheses concerning either the non-DIG versus the pre-DIG groups, or the non-DIG versus the post-DIG groups.

The relationships for the non-DIG versus the pre-DIG groups were stated in the form of null hypotheses. Support of these would lend support to the suggestion that the DIG process would benefit both equally—whether much or little. Thus, if it could be shown that the pre-DIG group could be helped by the process (as has been argued), then those who did not elect it could be similarly helped. Failure of the data to support this hypothesis, and the direction of the differences found, suggest that the pre-DIG group consisted of persons who elected to participate in DIG because of their increasing dissatisfaction with both the intrinsic and extrinsic aspects of their occupational experiences, including an unsatisfying utilization of their major talents. This conclusion is suggested not only by the group's scores, but by its responses to questions about employment status and prospects (Table 7). In these respects, at least, the pre-DIG group was not representative of others of similar background who never experienced DIG (i.e., the non-DIG group). Thus, present expectations concerning the benefits the pre-DIG group will receive from its DIG participation (based on the experiences of the post-DIG group) cannot be extended to *all* others of similar background.

TABLE 7

Employment Status and Prospects

	Percent of Group		
	Pre-DIG	*Post-DIG*	*Non-DIG*
Under-employed	53	41	23
Making progress towards occupational goals	28	66	79
Have promotional opportunities in present employment	16	59	71
Confident of finding satisfying employment elsewhere	30	67	76

This conclusion was further strengthened by the post-DIG to non-DIG comparisons. For those of comparable age and academic background, the post-DIG group did not differ appreciably from the non-DIG group on the dependent variables (Table 3). In other words, the non-DIG group members were doing as well in terms of using their skills in their work, and were equally satisfied with respect to a range of intrinsic and extrinsic measures. This was true even when the women of the post-DIG group were excluded from the comparisons, to guard against possible bias resulting from sex inequity in the labor market.

In addition to the lower skill utilization and satisfaction that seems to distinguish those who enter DIG from those who do not, as discussed above, the data suggest other possible differences. Although the skill profiles of the post-DIG and non-DIG groups were similar, they were not identical. Thus, the non-DIG group stressed logical thinking and analyzing, whereas DIG participants focused more on verbal communication, organizing, and on interpersonal skills generally. However, these findings of apparent differences are based on a fairly small data sample. They are the result of comparing how often each of the skills was selected by each group. Because of the large number of choices possible (43), no single skill was selected by a very large percentage of the group. Therefore, the apparent group skill differences resulting from comparison of individual skills in their profiles were examined more comprehensively.

This was done by tapping the collective experience of all the respondents relative to the usability of their skills in the labor market. Skills were grouped into categories of reported utilization (see Appendix E). The skill profile of each group was then compared to this collective labor market experience. In this way, apparent differences between the groups' relative skill strengths were examined with regard to the differential utilization of skills reported by the groups as a whole. This examination indicated that the most utilized skills reflected somewhat better the characteristics of the non-DIG group. Thus, the post-DIG group's skill utilization score may have been affected by its unique skill strengths, skills which were less in demand than the non-DIG group's. If so, this condition would also reflect upon the group's satisfaction, since the correlations between Skills Utilization Index and satisfactions (abilities utilization and general) were fairly high (0.59 and 0.54, respectively).

The various conclusions presented above concerning the efficacy of the DIG program are, of course, tentative in some important senses. It would be dangerous to conclude, for example, that all improvements in the career experiences of past participants in DIG are attributable to DIG alone. Even so, the data and interpretations presented here were supported by the comments of the respondents (see Appendix C). For the great majority of those who cared to comment, the DIG experience was, in retrospect, a positive experience; for some, even a crucial one. In this regard, it should be noted that, for the group as a whole, more than four years had elapsed since their DIG experience.

Another point to be noted in comparing and contrasting "DIG" with "non-DIG" groups is that the processes employed in DIG are not unique. They are advocated in one form or another by a number of counseling practitioners and authors of popular works. Thus, it is unwarranted to assume that the "non-DIG" population was entirely ignorant of these approaches, or that they had greater inherent insight than those who sought the aid of DIG.

Finally, a few comments about the dependent variables themselves should be made. Job satisfaction, although very important, must be regarded as a highly subjective and rather elusive quantity. The measures of satisfaction used in this study correlated only fairly well, at best, with other, more objective, variables. If satisfaction can be regarded as inversely related to the discrepancy between one's expectations and reality, then it follows that it will change when either reality or expectations change. Accordingly, when comparing any two groups' satisfaction scores, it may be argued that differences are the result of differences in expectation or aspiration, rather than differences in external reality. This argument is not made in the case of the comparisons of this study. Nevertheless, evidence has been presented to indicate the possibility that the several groups involved in the study were not without differences in their aspirations.

The focus of this study was upon skills, their transfer to various situations, and the effect of their use on an individual's sense of worth and well-being. As indicated by Table 5, trends in the Skills Utilization Index appeared to be time-related. Even so, the index did not appear to be a time-dependent variable; it showed only moderate correlation with time, and its relationship with time showed up as both positive and negative. By contrast, income was much more time dependent (positively related and more highly correlated). Thus, the Skills Utilization Index appears to be a useful measure, one that is more objective than job satisfaction, but which is affected by it.

SUMMARY AND CONCLUSIONS

Summary

Data were collected from three groups representative of the following:

Group I: those with prior occupational experiences who now seek the career counsaling assistance of the DIG program ("pre-DIG" group).

Group II: those who have participated in DIG in years past ("post-DIG" group).

Group III: those who have never experienced DIG and are not now seeking it ("non-DIG" group).

All three groups received academic preparation at the same institution (Columbia University).

It was initially expected that for groups with comparable demographic and educational backgrounds, analysis of their employment experience would show an advantage in favor of Group II in terms of the following outcomes, in particular:

(1) greater utilization of its members' skills in their employment

(2) greater satisfaction with the utilization of the abilities of its members in their employment

(3) greater job satisfaction generally.

Group scores on these outcome measures were the subject of hypotheses. The argument expressed by the hypotheses was that: (1) DIG makes an important difference to those who engage in it, (2) those who do so are initially no different than others of similar age, academic background, and occupational experience, (3) therefore, other things being equal, DIG participants should excel as a group.

The hypotheses concerning the group score comparisons, as well as the comparison results obtained, are summarized as follows:

Groups Compared	Expected Differences	Findings
a. Post-DIG vs. Non-DIG	Post-DIG would be higher	No significant difference
b. Pre-DIG vs. Non-DIG	No significant difference	Non-DIG higher
c. Post-DIG vs. Pre-DIG	Post-DIG would be higher	As expected

Significant differences between the groups with respect to age, sex, and area of academic preparation were found. When these were removed, comparison of the groups' scores on the outcome measures strongly supported expectations for comparison (c) only. The results expected for comparisons (a) and (b) were not obtained. Instead, that there was no significant difference on comparison (a), and results showed that the non-DIG group outscored the pre-DIG group significantly on comparison (b).

This meant that the pre-DIG group was actually not representative of others of like age, experience, and academic preparation who had not experienced DIG. Rather, its members were using their skills to a much less significant extent, were much less satisfied with their jobs generally, and with their jobs' use of their abilities, were earning considerably less, and had lower occupational status. Further, the results of comparison (c) indicate that some time later, following their DIG experience, members of this group should be doing as well on these measures as their peers who have not experienced DIG. However, to interpret the results of comparison (c) in this way requires an assumption that those who enter the program today are representative of those who have participated in the past. Both the background characteristics examined and circumstantial evidence support this assumption. The unsolicited comments of members of the post-DIG group attest to the help they have received from the program. It is therefore concluded that those who experience DIG go on to much more fulfilling occupational experiences than before.

Based upon the results of comparison (c), made separately for men and women, significant improvements are experienced by both. However, the changes experienced by the men have apparently been greater with regard to increased income and improved satisfaction concerning the utilization of their abilities. Thus, although post-DIG men and women did not differ significantly with respect to their skill utilization, intrinsic job satisfactions, or occupational status, the women were understandably less satisfied with extrinsic aspects of their jobs such as pay, advancement opportunity, security, and company policy.

The data obtained do not explain why those who choose to engage in DIG should differ from those who don't—why their occupational experiences should have been less rewarding prior to DIG. However, the skills representative of the two groups offer some clues.

On the basis of the skills identified by each respondent as representative of his/her most important and satisfying skill attributes, the groups could be described collectively as creative, analytical, logical, articulate, and responsible. However, there were differences of emphasis. Members of the post-DIG group emphasized their verbal communication and organizing skills and selected various interpersonal skills to describe themselves somewhat more than those in the non-DIG group. The latter reported their skills to be more concentrated in the areas of analyzing and logical thinking.

Combined data from both groups indicated that the skill attributes most heavily utilized in the occupations in which they were engaged were more typical of the non-DIG group's areas of greatest strength. In contrast, some of the particular strengths of the DIG participants were among the least utilized. Thus, the relatively low skills utilization reported by the pre-DIG group could be partially the result of its inability to find employment opportunities that required its particular skill strengths. The study showed reasonably strong correlation between Skills Utilization Index (SUI) and satisfaction with the utilization of one's abilities (i.e., 0.59), and between SUI and general job satisfaction (0.54). Thus, the pre-DIG group's lower scores on all three could be explained in part by a relatively weak demand for its particular skills in the job market.

Conclusions

The self-analysis process employed by DIG and others seems to be an effective intervention. It encourages one to think of one's employable skills in terms of a rather broad but powerful set of skill attributes. It then encourages the conceptualization of occupational requirements in these terms, and provides motivation to search for an opportunity to more fully utilize one's particular skills. The data obtained in this study strongly indicate that those who have elected to use the DIG program have subsequently experienced employment which has allowed them to use their skill attributes more fully than before, and has provided increased intrinsic and extrinsic rewards at the same salary levels as their peers.

These individuals' reasons for taking the program are not fully understood. Others of similar age, academic areas, and educational level seem to be doing as well without entering the program. However, the DIG approach is neither unique nor new. The general approach taken is advocated in popular publications which include best sellers. Thus, it cannot be presumed that those who have not sought the assistance of a program such as DIG are totally ignorant of its basic philosophy.

Findings suggest that those who elect the DIG program do not appreciate their own versatility and the marketability of their skill attributes. Until this experience, they conceive of their skills and abilities in narrow, specialized, and conventional terms. The DIG experience modifies their self-perceptions and often redirects their career aspirations based on new perceptions of their skill attributes and the importance of these for their self-fulfillment. Findings also suggest that the nature of the skills of those who elect DIG are somewhat different than those of their peers, and that these areas of strength need opportunities to be creative, verbal, and personal in order to be gratified. Further, indications are that there is less occupational demand for these abilities than for some others. If this is the case, then the search for satisfying occupations on the part of such persons needs to be consciously directed and well informed.

At the outset of the study, it was postulated that even the educationally advantaged could be helped by such a process. The subjects of the study must certainly be numbered among these. Their educational advantages did not, however, guarantee a level of self-understanding adequate to direct them to satisfying employment.

Those who were the focus of the study (i.e., those participating in DIG) were characterized by academic preparation that lacked occupational focus (as opposed to preparation for the professions). However, the results of the study do not preclude the possibility that many who choose early to prepare for more specific careers may do so without adequate understanding of their skill attributes, or may also have a restricted view of their skills. Most of those who had engaged in DIG had done so at a point in their lives when their academic preparation was essentially complete. The identification of one's skill attributes at a much earlier stage in one's educational development would seem to be a much more powerful intervention, helping to inform one's educational and vocational decisions.

Finally, a weakness of the approach as it now exists is that although the transferable skills of an individual are identified and made the focus of subsequent job finding activities, no mechanism exists for describing jobs in the same terms. That is, there is no readily available resource that adequately describes jobs in terms of such skill attribute requirements as are identified in the DIG process. Thus, the success of individuals who take such an approach is dependent, to a large degree, on both the ability and willingness of prospective employers to evaluate the requirements of their firms' positions in the same terms of reference.

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APPENDIX A

The Questionnaire

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION
The Ohio State University · 1960 Kenny Road · Columbus, Ohio 43210
Tel: (614) 486-3655 Cable: CTVOCEDOSU/Columbus, Ohio

SECTION 1

This section of the questionnaire contains questions about your background. Your response to these will be especially appreciated, as they are essential to the analysis and evaluation of the questionnaire results. YOUR ANSWERS WILL REMAIN CONFIDENTIAL.

1. What is your year of birth?________
2. In what year did you receive your highest degree?________
3. In what area did you receive your highest degree?________________________
   (i.e., sociology, engineering, history, teaching, etc.)
4. What is your level of education? (check one)
   - a. baccalaureate
   - b. post-baccalaureate
   - c. masters
   - d. post-masters/predoctoral
   - e. earned doctorate
   - f. post-doctoral
5. What is your approximate annual gross employment income?________________
6. What is your sex? M___ F___
7. What is your racial or ethnic background?________________________
8. How many years have you been working?__________
   (full-time, non-seasonal employment)
9. How many years have you worked for your present employer?__________
10. What is your occupation? (please be specific)________________________

SECTION 2

The following questions require only a Yes or No answer. Please check the appropriate column. If uncertain, omit the question.

Yes	No	
☐	☐	11. Are you presently employed? (If not, please answer about your present job in terms of your most recent job)
☐	☐	12. Do you consider that your educational and employment qualifications are in excess of job needs?
☐	☐	13. Do you consider yourself a member of a minority group?
☐	☐	14. Did you ever participate in Columbia's DIG program?
☐	☐	15. Do you feel that you are making satisfactory progress towards achieving your occupational goals?
☐	☐	16. Do you feel that you have promotional opportunities in your present employment?
☐	☐	17. Would you feel confident of finding satisfactory employment if you were seeking employment now?
☐	☐	18. Are you self-employed?
☐	☐	19. Do you have a disability that does, or may, interfere with your occupation? If yes, what is the disability?________________________.

SECTION 3

Each person has a unique set of talents and attributes that they find satisfaction and enjoyment using. Below is a list of such talents and attributes. Select, if possible, at least six that you have used successfully, and that you enjoy using:

Acceptance/Appreciation of others
Aesthetic judgment
Analyzing
Computing
Conceptualizing
Counseling
Creativity/Imagination/Innovation
Cooperating
Dealing with social situations
Decision making
Diligence/Perseverance
Exactness/Detail
Expressional fluency
Entertaining/Performing
Foresight
Generalizing
Helping/Serving
Fluency with ideas
Initiative/Enterprise
Logical thinking
Memory
Mechancial aptitude
Managing/Directing/Supervising
Motivating/Encouraging
Organizing
Patience
Persuading/Influencing
Promoting human relations
Planning
Problem recognition
Problem solving
Quantitative thinking
Resourcefulness
Receptivity/Adaptability/Flexibility
Responsibility
Self-discipline
Sensitivity/Empathy
Teaching/training
Time-sharing
Tolerance of ambiguity
Troubleshooting
Understanding human interaction
Verbal communication

From the selection you have made, list below the six that are most important to you, in approximately their order of importance. If one of your six most important talents or attributes was not included in the list above, include it below.

	Talent or Attribute	Rating
No. 1	______________________________	____
2	______________________________	____
3	______________________________	____
4	______________________________	____
5	______________________________	____
6	______________________________	____

Finally, use the "Rating" column to indicate the **extent to which you utilize** each talent or attribute in your job.* To determine the extent of utilization, consider and weigh the frequency, importance and level of use, as well as any other factor that you think contributes to this determination. In your own mind, combine these factors into a single rating reflecting the utilization of each talent or attribute. Use the following rating scale:

0 – not utilized
1 – under unusual circumstances, may be utilized to a minor extent
2 –
3 –
4 – substantially utilized
5 –
6 –
7 – most highly utilized

Example: Supposing you have listed "aesthetic judgment" as your most important talent (i.e. No.1), and that this talent is not utilized in your job, you should enter a "0" in the "Rating" column.

* If you are currently unemployed, or in temporary employment, please rate the use of your talents for your most recent "permanent" job.

SECTION 4

The purpose of this section is to give you a chance to tell how you feel about your job. On the basis of your answers and those of people like you, we hope to get a better understanding of the things people like and dislike about their jobs.

If you are presently **unemployed**, please answer with respect to your most recent job. If you are **self-employed**, please omit this section.

In this section you will find statements about certain aspects of your job. Please read each statement carefully and decide how you feel about the aspect of your job described by the statement.

- Circle 1 if you are **not satisfied** (if that aspect is much poorer than you would like it to be).
- Circle 2 if you are **only slightly satisfied** (if that aspect is not quite what you would like it to be).
- Circle 3 if you are **satisfied** (if that aspect is what you would like it to be).
- Circle 4 if you are **very satisfied** (if that aspect is even better than you expected it to be).
- Circle 5 if you are **extremely satisfied** (if that aspect is much better than you hoped it could be).

Please answer **every item**, even though some of them seem repetitious. We need **all** your answers. Also, please **do not turn back** to previous statements.

THANK YOU VERY MUCH!

On my present job, this is how I feel about . . .	For Each Statement Circle a Number				
1. The chance to do things for other people.	1	2	3	4	5
2. The chance to try my own methods of doing the job.	1	2	3	4	5
3. Being able to do things that don't go against my conscience.	1	2	3	4	5
4. The chance to work alone on the job.	1	2	3	4	5
5. The chance to do different things from time to time.	1	2	3	4	5
6. The chance to tell people what to do.	1	2	3	4	5
7. The chance to do something that makes use of my abilities.	1	2	3	4	5
8. The chance to be "somebody" in the community.	1	2	3	4	5
9. The way company policies are put into practice.	1	2	3	4	5
10. The way my boss handles his/her employees.	1	2	3	4	5
11. The way my job provides for steady employment.	1	2	3	4	5
12. My pay and the amount of work I do.	1	2	3	4	5
13. The working conditions.	1	2	3	4	5
14. The chances for advancement on this job.	1	2	3	4	5
15. The competence of my supervisor in making decisions.	1	2	3	4	5
16. The way my co-workers get along with each other.	1	2	3	4	5
17. The freedom to use my own judgement.	1	2	3	4	5
18. The praise I get for doing a good job.	1	2	3	4	5
19. The feeling of accomplishment I get from the job.	1	2	3	4	5
20. Being able to keep busy all the time.	1	2	3	4	5
21. The chance to be of service to people.	1	2	3	4	5
22. The chance to do new and original things on my own.	1	2	3	4	5
23. Being able to do things that don't go against my religious beliefs.	1	2	3	4	5
24. The chance to work by myself.	1	2	3	4	5
25. The variety in my work.	1	2	3	4	5
26. The chance to tell other workers how to do things.	1	2	3	4	5
27. The chance to do work that is well suited to my abilities.	1	2	3	4	5
28. The social position in the community that goes with the job.	1	2	3	4	5
29. Company policies and the way in which they are administared.	1	2	3	4	5
30. The way my supervisor and I understand each other.	1	2	3	4	5
31. The way my job provides for a secure future.	1	2	3	4	5
32. The chance to make as much money as my friends.	1	2	3	4	5
33. The physical surroundings where I work.	1	2	3	4	5

On my present job, this is how I feel about . . .

For Each Statement Circle a Number

34. The chances of getting ahead on this job. 1 2 3 4 5
35. The technical "know-how" of my supervisor. 1 2 3 4 5
36. The chance to develop close friendships with my co-workers. 1 2 3 4 5
37. The chance to make decisions on my own. 1 2 3 4 5
38. The way I get full credit for the work I do. 1 2 3 4 5
39. Being able to take pride in a job well done. 1 2 3 4 5
40. Being able to do something much of the time. 1 2 3 4 5
41. The chance to help people. 1 2 3 4 5
42. The chance to try something different. 1 2 3 4 5
43. Being able to do the job without feeling it is morally wrong. 1 2 3 4 5
44. The chance to be alone on the job. 1 2 3 4 5
45. The routine in my work. 1 2 3 4 5
46. The chance to supervise other people. 1 2 3 4 5
47. The chance to make use of my best abilities. 1 2 3 4 5
48. The chance to "rub elbows" with important people. 1 2 3 4 5
49. The way employees are informed about company policies. 1 2 3 4 5
50. The way my boss backs up his/her employees (with top management). 1 2 3 4 5
51. My job security. 1 2 3 4 5
52. How my pay compares with that for similar jobs in other companies. 1 2 3 4 5
53. The pleasantness of the working conditions. 1 2 3 4 5
54. The way promotions are given out on this job. 1 2 3 4 5
55. The way my boss delegates work to others. 1 2 3 4 5
56. The friendliness of my co-workers. 1 2 3 4 5
57. The chance to be responsible for the work of others. 1 2 3 4 5
58. The recognition I get for the work I do. 1 2 3 4 5
59. Being able to do something worthwhile. 1 2 3 4 5
60. Being able to stay busy. 1 2 3 4 5
61. The chance to be of service to others. 1 2 3 4 5
62. The chance to develop new and better ways to do the job. 1 2 3 4 5
63. The chance to do things that don't harm other people. 1 2 3 4 5
64. The chance to work independently of others. 1 2 3 4 5
65. The chance to do something different every day. 1 2 3 4 5
66. The chance to have other workers look to me for direction. 1 2 3 4 5

On my present job, this is how I feel about . . .

For Each Statement Circle a Number

67. The chance to do the kind of work that I do best. 1 2 3 4 5
68. The chance to be important in the eyes of others. 1 2 3 4 5
69. The policies and practices toward employees of this company. 1 2 3 4 5
70. The way my boss takes care of complaints of his/her employees. 1 2 3 4 5
71. How steady my job is. 1 2 3 4 5
72. The amount of pay for the work I do. 1 2 3 4 5
73. The physical working conditions of the job. 1 2 3 4 5
74. The opportunities for advancement on this job. 1 2 3 4 5
75. The way my boss provides help on hard problems. 1 2 3 4 5
76. The way my co-workers are easy to make friends with. 1 2 3 4 5
77. The chance to be responsible for planning my work. 1 2 3 4 5
78. The way they usually tell me when I do my job well. 1 2 3 4 5
79. The chance to do my best at all times. 1 2 3 4 5
80. The chance to be "on the go" all the time. 1 2 3 4 5
81. The chance to be of some small service to other people. 1 2 3 4 5
82. The chance to try out some of my own ideas. 1 2 3 4 5
83. The chance to do the job without feeling I am cheating anyone. 1 2 3 4 5
84. The chance to work away from others. 1 2 3 4 5
85. The chance to do many different things on the job. 1 2 3 4 5
86. The chance to tell others what to do. 1 2 3 4 5
87. The chance to make use of my abilities and skills. 1 2 3 4 5
88. The chance to have a definite place in the community. 1 2 3 4 5
89. The way the company treats its employees. 1 2 3 4 5
90. The personal relationship between my boss and his/her employees. 1 2 3 4 5
91. The way layoffs and transfers are avoided in my job. 1 2 3 4 5
92. How my pay compares with that of other workers. 1 2 3 4 5
93. The working conditions (heating, lighting, ventilation, etc.) on this job. 1 2 3 4 5
94. My chances for advancement. 1 2 3 4 5
95. The way my boss trains his/her employees. 1 2 3 4 5
96. The spirit of cooperation among my co-workers. 1 2 3 4 5
97. The responsibility of my job. 1 2 3 4 5
98. The way I am noticed when I do a good job. 1 2 3 4 5
99. Being able to see the results of the work I do. 1 2 3 4 5
100. The chance to be active much of the time. 1 2 3 4 5

APPENDIX B

Group Characteristics and Tests of Differences

APPENDIX B

Group Characteristics and Tests of Differences

The data collected for the study were processed using SPSS (Nie et al., 1975). This appendix contains reproductions of the computer printouts of the group characteristic breakdowns, and of the principal group comparisons used for this report.

```
    SEX       RESPONDENTS SEX
* * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                       GROUP
             COUNT   I
            ROW PCT  IPREDIG    DIG       CONTROL     ROW
            COL PCT  I                                TOTAL
            TOT PCT  I      1.I      2.I      3.I
SEX         --------I--------I--------I--------I
                 1.  I    34  I   144  I   143  I    321
  MALE               I  10.6  I  44.9  I  44.5  I   76.2
                     I  44.7  I  72.0  I  98.6  I
                     I   8.1  I  34.2  I  34.0  I
                    -I--------I--------I--------I
                 2.  I    42  I    56  I     2  I    100
  FEMALE             I  42.0  I  56.0  I   2.0  I   23.8
                     I  55.3  I  28.0  I   1.4  I
                     I  10.0  I  13.3  I   0.5  I
                    -I--------I--------I--------I
            COLUMN        76       200       145      421
             TOTAL      18.1      47.5      34.4    100.0

CHI SQUARE =     83.73476 WITH    2 DEGREES OF FREEDOM

                                    SIGNIFICANCE = 0.0000
    AREA      COLLEGE MAJOR
* * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                       GROUP
             COUNT   I
            ROW PCT  IPREDIG    DIG       CONTROL     ROW
            COL PCT  I                                TOTAL
            TOT PCT  I      1.I      2.I      3.I
AREA        --------I--------I--------I--------I
                 1.  I     3  I    14  I    60  I     77
  PROF PREP          I   3.9  I  18.2  I  77.9  I   18.6
                     I   4.0  I   7.1  I  42.3  I
                     I   0.7  I   3.4  I  14.5  I
                    -I--------I--------I--------I
                 2.  I     7  I    39  I    26  I     72
  VOC SPEC           I   9.7  I  54.2  I  36.1  I   17.3
                     I   9.3  I  19.7  I  18.3  I
                     I   1.7  I   9.4  I   6.3  I
                    -I--------I--------I--------I
                 3.  I     5  I    11  I    10  I     26
  PHYS SCI           I  19.2  I  42.3  I  38.5  I    6.3
                     I   6.7  I   5.6  I   7.0  I
                     I   1.2  I   2.7  I   2.4  I
                    -I--------I--------I--------I
                 4.  I    60  I   134  I    46  I    240
  ACADEMIC           I  25.0  I  55.8  I  19.2  I   57.8
                     I  80.0  I  67.7  I  32.4  I
                     I  14.5  I  32.3  I  11.1  I
                    -I--------I--------I--------I
            COLUMN        75       198       142      415
             TOTAL      18.1      47.7      34.2    100.0

CHI SQUARE =     94.99715 WITH    6 DEGREES OF FREEDOM

                                    SIGNIFICANCE = 0.0000
```

```
      RACE      RACIAL CHARACTERISTICS
* * * * * * * * * * * * * * * * * * * * * * * * * * *

                      GROUP
              COUNT  I
              ROW PCT IPREDIG   DIG       CONTROL    ROW
              COL PCT I                              TOTAL
              TOT PCT I       1.I       2.I       3.I
RACE          --------I--------I--------I--------I
                   1. I    63  I   176  I   130  I   369
  WHITE               I  17.1  I  47.7  I  35.2  I  90.7
                      I  87.5  I  90.7  I  92.2  I
                      I  15.5  I  43.2  I  31.9  I
                     -I--------I--------I--------I
                   2. I     2  I     6  I     2  I    10
  BLACK               I  20.0  I  60.0  I  20.0  I   2.5
                      I   2.8  I   3.1  I   1.4  I
                      I   0.5  I   1.5  I   0.5  I
                     -I--------I--------I--------I
                   3. I     7  I    12  I     9  I    28
  OTHER               I  25.0  I  42.9  I  32.1  I   6.9
                      I   9.7  I   6.2  I   6.4  I
                      I   1.7  I   2.9  I   2.2  I
                     -I--------I--------I--------I
              COLUMN        72      194      141      407
               TOTAL      17.7     47.7     34.6    100.0

CHI SQUARE =      2.11655 WITH    4 DEGREES OF FREEDOM
                                  SIGNIFICANCE = 0.7143


      DEGREE    HIGHEST DEGREE
* * * * * * * * * * * * * * * * * * * * * * * * * * *

                      GROUP
              COUNT  I
              ROW PCT IPREDIG   DIG       CONTROL    ROW
              COL PCT I                              TOTAL
              TOT PCT I       1.I       2.I       3.I
DEGREE        --------I--------I--------I--------I
                   1. I    24  I    71  I    43  I   138
  BA BS+              I  17.4  I  51.4  I  31.2  I  32.8
                      I  31.6  I  35.5  I  29.7  I
                      I   5.7  I  16.9  I  10.2  I
                     -I--------I--------I--------I
                   2. I    37  I    97  I    41  I   175
  MASTERS +           I  21.1  I  55.4  I  23.4  I  41.6
                      I  48.7  I  48.5  I  28.3  I
                      I   8.8  I  23.0  I   9.7  I
                     -I--------I--------I--------I
                   3. I    15  I    32  I    61  I   108
  PH.D +              I  13.9  I  29.6  I  56.5  I  25.7
                      I  19.7  I  16.0  I  42.1  I
                      I   3.6  I   7.6  I  14.5  I
                     -I--------I--------I--------I
              COLUMN        76      200      145      421
               TOTAL      18.1     47.5     34.4    100.0

CHI SQUARE =     33.85144 WITH    4 DEGREES OF FREEDOM
                                  SIGNIFICANCE = 0.0000
```

```
    PRP PRESENTLY EMPLOYED?
* * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                     GROUP
             COUNT  I
           ROW PCT  IPREDIG   DIG      CONTROL    ROW
           COL PCT  I                             TOTAL
           TOT PCT  I      1.I      2.I      3.I
PRP         --------I--------I--------I--------I
                1.  I    36  I   176  I   135  I   347
  YES               I  10.4  I  50.7  I  38.9  I  82.4
                    I  47.4  I  88.0  I  93.1  I
                    I   8.6  I  41.8  I  32.1  I
                   -I--------I--------I--------I
                2.  I    40  I    24  I    10  I    74
  NO                I  54.1  I  32.4  I  13.5  I  17.6
                    I  52.6  I  12.0  I   6.9  I
                    I   9.5  I   5.7  I   2.4  I
                   -I--------I--------I--------I
            COLUMN       76      200      145      421
             TOTAL     18.1     47.5     34.4    100.0

CHI SQUARE =     80.17296 WITH    2 DEGREES OF FREEDOM
                                  SIGNIFICANCE = 0.0000
```

```
    UNDEREMP UNDEREMPLOYED?
* * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                     GROUP
             COUNT  I
           ROW PCT  IPREDIG   DIG      CONTROL    ROW
           COL PCT  I                             TOTAL
           TOT PCT  I      1.I      2.I      3.I
UNDEREMP    --------I--------I--------I--------I
                1.  I    40  I    81  I    34  I   155
  YES               I  25.8  I  52.3  I  21.9  I  36.8
                    I  52.6  I  40.5  I  23.4  I
                    I   9.5  I  19.2  I   8.1  I
                   -I--------I--------I--------I
                2.  I    36  I   119  I   111  I   266
  NO                I  13.5  I  44.7  I  41.7  I  63.2
                    I  47.4  I  59.5  I  76.6  I
                    I   8.6  I  28.3  I  26.4  I
                   -I--------I--------I--------I
            COLUMN       76      200      145      421
             TOTAL     18.1     47.5     34.4    100.0

CHI SQUARE =     20.47765 WITH    2 DEGREES OF FREEDOM
                                  SIGNIFICANCE = 0.0000
```

```
PROP PROMOTIONAL OPPORTUNITY?
* * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                      GROUP
            COUNT   I
            ROW PCT IPREDIG    DIG        CONTROL     ROW
            COL PCT I                                 TOTAL
            TOT PCT I       1.I       2.I       3.I
PROP        --------I--------I--------I--------I
                 1. I     12 I    117 I    103 I     232
  YES               I    5.2 I   50.4 I   44.4 I    55.1
                    I   15.8 I   58.5 I   71.0 I
                    I    2.9 I   27.8 I   24.5 I
                   -I--------I--------I--------I
                 2. I     64 I     83 I     42 I     189
  NO                I   33.9 I   43.9 I   22.2 I    44.9
                    I   84.2 I   41.5 I   29.0 I
                    I   15.2 I   19.7 I   10.0 I
                   -I--------I--------I--------I
            COLUMN        76       200       145       421
             TOTAL      18.1      47.5      34.4     100.0

CHI SQUARE =      63.28929 WITH    2 DEGREES OF FREEDOM
                                   SIGNIFICANCE = 0.0000
```

```
SATEMP OTHER EMPLOYMENT PROSPECTS?
* * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                      GROUP
            COUNT   I
            ROW PCT IPREDIG    DIG        CONTROL     ROW
            COL PCT I                                 TOTAL
            TOT PCT I       1.I       2.I       3.I
SATEMP      --------I--------I--------I--------I
                 1. I     23 I    133 I    110 I     266
  YES               I    8.6 I   50.0 I   41.4 I    63.2
                    I   30.3 I   66.5 I   75.9 I
                    I    5.5 I   31.6 I   26.1 I
                   -I--------I--------I--------I
                 2. I     53 I     67 I     35 I     155
  NO                I   34.2 I   43.2 I   22.6 I    36.8
                    I   69.7 I   33.5 I   24.1 I
                    I   12.6 I   15.9 I    8.3 I
                   -I--------I--------I--------I
            COLUMN        76       200       145       421
             TOTAL      18.1      47.5      34.4     100.0

CHI SQUARE =      46.37280 WITH    2 DEGREES OF FREEDOM
                                   SIGNIFICANCE = 0.0000
```

```
     SELFEMPL  SELF-EMPLOYED?
* * * * * * * * * * * * * * * * * * * * * * * * * * * *

                      GROUP
             COUNT  I
           ROW PCT  IPREDIG    DIG       CONTROL    ROW
           COL PCT  I                               TOTAL
           TOT PCT  I      1.I      2.I      3.I
SELFEMPL   --------I--------I--------I--------I
                1.  I     6  I    28  I    21  I     55
  YES               I  10.9  I  50.9  I  38.2  I   13.1
                    I   7.9  I  14.0  I  14.5  I
                    I   1.4  I   6.7  I   5.0  I
                   -I--------I--------I--------I
                2.  I    70  I   172  I   124  I    366
  NO                I  19.1  I  47.0  I  33.9  I   86.9
                    I  92.1  I  86.0  I  85.5  I
                    I  16.6  I  40.9  I  29.5  I
                   -I--------I--------I--------I
            COLUMN       76      200      145       421
             TOTAL     18.1     47.5     34.4     100.0

CHI SQUARE =      2.19936 WITH    2 DEGREES OF FREEDOM
                                  SIGNIFICANCE = 0.3330


     OCCGOALS ACHIEVING OCCUPATIONAL GOALS?
* * * * * * * * * * * * * * * * * * * * * * * * * * * *

                      GROUP
             COUNT  I
           ROW PCT  IPREDIG    DIG       CONTROL    ROW
           COL PCT  I                               TOTAL
           TOT PCT  I      1.I      2.I      3.I
OCCGOALS   --------I--------I--------I--------I
                1.  I    21  I   132  I   115  I    268
  YES               I   7.8  I  49.3  I  42.9  I   63.7
                    I  27.6  I  66.0  I  79.3  I
                    I   5.0  I  31.4  I  27.3  I
                   -I--------I--------I--------I
                2.  I    55  I    68  I    30  I    153
  NO                I  35.9  I  44.4  I  19.6  I   36.3
                    I  72.4  I  34.0  I  20.7  I
                    I  13.1  I  16.2  I   7.1  I
                   -I--------I--------I--------I
            COLUMN       76      200      145       421
             TOTAL     18.1     47.5     34.4     100.0

CHI SQUARE =     58.46736 WITH    2 DEGREES OF FREEDOM
                                  SIGNIFICANCE = 0.0000
```

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     AGE       AGE OF RESPONDENTS
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                   DEGREE
             MEAN I
            COUNT I  BA BS+       MASTERS      PH.D +          ROW
              SUM I               +                           TOTAL
          STD DEV I         1 I         2 I         3 I
GROUP     --------I-----------I-----------I-----------I
                1 I     28.54 I     35.24 I     35.67 I      33.21
  PREDIG          I        24 I        37 I        15 I         76
                  I    685.00 I   1304.00 I    535.00 I    2524.00
                  I      4.85 I      9.86 I      7.10 I       8.57
                 -I-----------I-----------I-----------I
                2 I     29.48 I     33.34 I     37.16 I      32.58
  DIG             I        71 I        97 I        32 I        200
                  I   2093.00 I   3234.00 I   1189.00 I    6516.00
                  I      5.84 I      7.60 I      7.29 I       7.43
                 -I-----------I-----------I-----------I
                3 I     29.47 I     30.27 I     30.89 I      30.29
  CONTROL         I        43 I        41 I        61 I        145
                  I   1267.00 I   1241.00 I   1884.00 I    4392.00
                  I      2.86 I      4.80 I      2.09 I       3.31
                 -I-----------I-----------I-----------I
     COLUMN TOTAL       29.31       33.02       33.41        31.90
                          138         175         108          421
                      4045.00     5779.00     3608.00     13432.00
                         4.90        7.76        5.74         6.67
```

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     YRGRAD    YEARS SINCE HIGHEST DEGREE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                   DEGREE
             MEAN I
            COUNT I  BA BS+       MASTERS      PH.D +          ROW
              SUM I               +                           TOTAL
          STD DEV I         1 I         2 I         3 I
GROUP     --------I-----------I-----------I-----------I
                1 I      2.88 I      5.11 I      3.40 I       4.05
  PREDIG          I        24 I        36 I        15 I         75
                  I     69.00 I    184.00 I     51.00 I     304.00
                  I      3.23 I      9.11 I      3.60 I       6.79
                 -I-----------I-----------I-----------I
                2 I      6.51 I      5.85 I      5.56 I       6.04
  DIG             I        70 I        96 I        32 I        198
                  I    456.00 I    562.00 I    178.00 I    1196.00
                  I      4.85 I      5.98 I      5.02 I       5.44
                 -I-----------I-----------I-----------I
                3 I      6.63 I      3.97 I      4.53 I       4.99
  CONTROL         I        41 I        40 I        60 I        141
                  I    272.00 I    159.00 I    272.00 I     703.00
                  I      3.10 I      2.95 I      2.31 I       2.93
                 -I-----------I-----------I-----------I
     COLUMN TOTAL        5.90        5.26        4.68         5.32
                          135         172         107          414
                       797.00      905.00      501.00      2203.00
                         4.33        6.28        3.54         5.08
```

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     WORKFORC  NO OF YEARS IN THE WORKFORCE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                    DEGREE
               MEAN I
              COUNT I  BA BS+       MASTERS      PH.D +       ROW
                SUM I               +                         TOTAL
            STD DEV I        1 I        2 I        3 I
GROUP       --------I----------I----------I----------I
                  1 I     5.48 I     9.41 I     7.69 I      7.82
  PREDIG            I       21 I       32 I       13 I        66
                    I   115.00 I   301.00 I   100.00 I    516.00
                    I     4.30 I     7.16 I     7.97 I      6.70
                   -I----------I----------I----------I
                  2 I     5.64 I     7.93 I     7.28 I      7.02
  DIG               I       69 I       95 I       32 I       196
                    I   389.00 I   753.00 I   233.00 I   1375.00
                    I     5.23 I     6.86 I     6.33 I      6.30
                   -I----------I----------I----------I
                  3 I     5.75 I     5.10 I     4.41 I      4.99
  CONTROL           I       40 I       39 I       61 I       140
                    I   230.00 I   199.00 I   269.00 I    698.00
                    I     2.88 I     4.91 I     2.57 I      3.48
                   -I----------I----------I----------I
     COLUMN TOTAL         5.65        7.55        5.68        6.44
                           130         166         106         402
                        734.00     1253.00      602.00     2589.00
                          4.45        6.65        5.01        5.65
```

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     PREJOB    YEARS WITH PRESENT EMPLOYER
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                    DEGREE
               MEAN I
              COUNT I  BA BS+       MASTERS      PH.D +       ROW
                SUM I               +                         TOTAL
            STD DEV I        1 I        2 I        3 I
GROUP       --------I----------I----------I----------I
                  1 I     2.53 I     4.57 I     2.50 I      3.38
  PREDIG            I       19 I       21 I       10 I        50
                    I    48.00 I    96.00 I    25.00 I    169.00
                    I     2.46 I     4.59 I     1.84 I      3.53
                   -I----------I----------I----------I
                  2 I     2.69 I     3.15 I     2.00 I      2.79
  DIG               I       67 I       88 I       31 I       186
                    I   180.00 I   277.00 I    62.00 I    519.00
                    I     2.33 I     3.65 I     1.69 I      2.97
                   -I----------I----------I----------I
                  3 I     3.36 I     2.59 I     2.46 I      2.75
  CONTROL           I       39 I       39 I       59 I       137
                    I   131.00 I   101.00 I   145.00 I    377.00
                    I     2.57 I     1.89 I     1.62 I      2.03
                   -I----------I----------I----------I
     COLUMN TOTAL         2.87        3.20        2.32        2.86
                           125         148         100         373
                        359.00      474.00      232.00     1065.00
                          2.43        3.47        1.66        2.76
```

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...    ANNINCOM  GROSS ANNUAL INCOME
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                 DEGREE
           MEAN I
          COUNT I  BA BS+      MASTERS      PH.D +        ROW
            SUM I              +                          TOTAL
        STD DEV I         1 I         2 I         3 I
GROUP   --------I----------I----------I----------I
              1 I   9033.00 I  12800.00 I  15650.00 I  12078.24
  PREDIG        I        20 I        25 I        12 I        57
                I180660.00 I320000.00 I187800.00 I688460.00
                I   5125.26 I   5575.24 I  12680.66 I   7752.27
               -I----------I----------I----------I
              2 I  17659.41 I  17594.67 I  20346.55 I  18042.58
  DIG           I        68 I        91 I        29 I       188
                I********* I********* I590050.00 I*********
                I  11449.64 I   8520.63 I   9460.69 I   9812.61
               -I----------I----------I----------I
              3 I  17611.25 I  17308.75 I  28795.08 I  22363.83
  CONTROL       I        40 I        40 I        61 I       141
                I704450.00 I692350.00 I********* I*********
                I   9062.29 I   7595.90 I  12517.78 I  11729.44
               -I----------I----------I----------I
   COLUMN TOTAL    16296.48    16752.98    24846.57    18740.32
                        128         156         102         386
                 2085950.00  2613465.00  2534350.00  7233765.00
                   10383.83     8031.30    12676.41    10823.86


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...    OCCSTAT   OCCUPATIONAL STATUS SCORE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                 DEGREE
           MEAN I
          COUNT I  BA BS+      MASTERS      PH.D +        ROW
            SUM I              +                          TOTAL
        STD DEV I         1 I         2 I         3 I
GROUP   --------I----------I----------I----------I
              1 I     76.55 I     82.30 I     86.73 I     81.40
  PREDIG        I        22 I        30 I        15 I        67
                I   1684.00 I   2469.00 I   1301.00 I   5454.00
                I     15.62 I      9.35 I      6.98 I     11.88
               -I----------I----------I----------I
              2 I     86.43 I     90.19 I     93.71 I     89.48
  DIG           I        65 I        94 I        31 I       190
                I   5618.00 I   8478.00 I   2905.00 I  17001.00
                I     11.48 I      7.37 I      6.10 I      9.15
               -I----------I----------I----------I
              3 I     83.43 I     87.95 I     96.76 I     90.53
  CONTROL       I        37 I        41 I        59 I       137
                I   3087.00 I   3606.00 I   5709.00 I  12402.00
                I     13.26 I      6.77 I      5.29 I     10.22
               -I----------I----------I----------I
   COLUMN TOTAL       83.78       88.20       94.43       88.47
                        124         165         105         394
                   10389.00    14553.00     9915.00    34857.00
                      13.22        8.13        6.69       10.52
```

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     SUI      SKILL UTILIZATION INDEX
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                    DEGREE
              MEAN I
             COUNT I  BA BS+      MASTERS     PH.D +        ROW
               SUM I              +                         TOTAL
           STD DEV I        1  I        2  I        3  I
GROUP      --------I-----------I-----------I-----------I
                 1 I     0.47  I     0.55  I     0.47  I     0.51
  PREDIG           I     24    I     34    I     13    I     71
                   I    11.29  I    18.74  I     6.12  I    36.14
                   I     0.20  I     0.20  I     0.29  I     0.22
                  -I-----------I-----------I-----------I
                 2 I     0.64  I     0.66  I     0.68  I     0.66
  DIG              I     70    I     95    I     31    I    196
                   I    44.79  I    63.07  I    21.14  I   129.00
                   I     0.20  I     0.16  I     0.16  I     0.18
                  -I-----------I-----------I-----------I
                 3 I     0.68  I     0.66  I     0.75  I     0.70
  CONTROL          I     43    I     41    I     59    I    143
                   I    29.38  I    27.17  I    44.00  I   100.55
                   I     0.16  I     0.18  I     0.14  I     0.16
                  -I-----------I-----------I-----------I
    COLUMN TOTAL         0.62        0.64        0.69        0.65
                         137         170         103         410
                        85.45      108.98       71.26      265.69
                         0.20        0.18        0.19        0.19


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     ABU      SATISFACTION WITH ABILITY UTILI
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                    DEGREE
              MEAN I
             COUNT I  BA BS+      MASTERS     PH.D +        ROW
               SUM I              +                         TOTAL
           STD DEV I        1  I        2  I        3  I
GROUP      --------I-----------I-----------I-----------I
                 1 I     9.08  I    10.89  I    11.21  I    10.36
  PREDIG           I     24    I     36    I     14    I     74
                   I   218.00  I   392.00  I   157.00  I   767.00
                   I     4.80  I     6.14  I     7.03  I     5.91
                  -I-----------I-----------I-----------I
                 2 I    14.34  I    16.02  I    16.90  I    15.60
  DIG              I     61    I     89    I     30    I    180
                   I   875.00  I  1426.00  I   507.00  I  2808.00
                   I     5.80  I     5.78  I     6.75  I     6.00
                  -I-----------I-----------I-----------I
                 3 I    15.32  I    15.68  I    18.76  I    16.77
  CONTROL          I     40    I     41    I     51    I    132
                   I   613.00  I   643.00  I   957.00  I  2213.00
                   I     5.79  I     5.35  I     4.21  I     5.30
                  -I-----------I-----------I-----------I
    COLUMN TOTAL        13.65       14.83       17.06       14.99
                         125         166          95         386
                      1706.00     2461.00     1621.00     5788.00
                         6.02        6.09        6.08        6.18
```

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     INT       INTRINSIC JOB SATISFACTION
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                 DEGREE
            MEAN I
           COUNT I  BA BS+       MASTERS      PH.D +         ROW
             SUM I               +                          TOTAL
         STD DEV I          1 I          2 I          3 I
GROUP    --------I------------I------------I------------I
               1 I      12.20 I      12.90 I      13.02 I      12.69
  PREDIG         I         24 I         36 I         13 I         73
                 I     292.73 I     464.27 I     169.27 I     926.27
                 I       3.43 I       4.79 I       5.35 I       4.45
                -I------------I------------I------------I
               2 I      15.10 I      16.51 I      16.37 I      16.00
  DIG            I         57 I         82 I         24 I        163
                 I     860.82 I    1353.82 I     392.82 I    2607.45
                 I       3.96 I       3.39 I       3.81 I       3.70
                -I------------I------------I------------I
               3 I      15.97 I      16.23 I      17.61 I      16.64
  CONTROL        I         37 I         41 I         43 I        121
                 I     591.60 I     665.27 I     757.09 I    2013.36
                 I       3.47 I       3.24 I       2.94 I       3.26
                -I------------I------------I------------I
     COLUMN TOTAL       14.78        15.62        16.49        15.54
                          118          159           80          357
                      1744.54      2483.36      1319.18      5547.09
                         3.92         3.98         3.98         4.00


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     GENSAT    GENERAL JOB SATISFACTION
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                 DEGREE
            MEAN I
           COUNT I  BA BS+       MASTERS      PH.D +         ROW
             SUM I               +                          TOTAL
         STD DEV I          1 I          2 I          3 I
GROUP    --------I------------I------------I------------I
               1 I      24.84 I      24.17 I      23.56 I      24.28
  PREDIG         I         24 I         36 I         13 I         73
                 I     596.17 I     870.05 I     306.27 I    1772.49
                 I       5.74 I       7.90 I       7.24 I       7.06
                -I------------I------------I------------I
               2 I      29.53 I      31.19 I      30.98 I      30.58
  DIG            I         52 I         75 I         23 I        150
                 I    1535.82 I    2339.11 I     712.43 I    4587.36
                 I       7.12 I       5.98 I       7.44 I       6.63
                -I------------I------------I------------I
               3 I      31.23 I      30.96 I      32.97 I      31.76
  CONTROL        I         35 I         38 I         41 I        114
                 I    1092.89 I    1176.58 I    1351.59 I    3621.05
                 I       6.50 I       6.30 I       5.17 I       6.00
                -I------------I------------I------------I
     COLUMN TOTAL       29.05        29.43        30.78        29.62
                          111          149           77          337
                      3224.88      4385.73      2370.29      9980.90
                         7.00         7.18         7.06         7.10
```

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* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     AGE       AGE OF RESPONDENTS
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                 AREA
           MEAN I
          COUNT I  PROF PRE    VOC SPEC    PHYS SCI    ACADEMIC       ROW
            SUM I  P                                                 TOTAL
        STD DEV I         1 I         2 I         3 I         4 I
GROUP   --------I----------I----------I----------I----------I
              1 I     34.00 I     37.86 I     32.80 I     32.57 I     33.13
  PREDIG        I         3 I         7 I         5 I        60 I        75
                I    102.00 I    265.00 I    164.00 I   1954.00 I   2485.00
                I      7.21 I     11.45 I      5.81 I      8.51 I      8.60
               -I----------I----------I----------I----------I
              2 I     30.86 I     33.08 I     35.27 I     32.46 I     32.63
  DIG           I        14 I        39 I        11 I       134 I       198
                I    432.00 I   1290.00 I    388.00 I   4350.00 I   6460.00
                I      2.48 I      8.54 I     10.71 I      7.16 I      7.45
               -I----------I----------I----------I----------I
              3 I     30.77 I     30.27 I     30.80 I     29.50 I     30.27
  CONTROL       I        60 I        26 I        10 I        46 I       142
                I   1846.00 I    787.00 I    308.00 I   1357.00 I   4298.00
                I      2.17 I      2.92 I      3.65 I      4.52 I      3.34
               -I----------I----------I----------I----------I
    COLUMN TOTAL      30.91       32.53       33.08       31.92       31.91
                         77          72          26         240         415
                    2380.00     2342.00      860.00     7661.00    13243.00
                       2.54        7.61        7.76        7.19        6.70


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     YRGRAD    YEARS SINCE HIGHEST DEGREE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                 AREA
           MEAN I
          COUNT I  PROF PRE    VOC SPEC    PHYS SCI    ACADEMIC       ROW
            SUM I  P                                                 TOTAL
        STD DEV I         1 I         2 I         3 I         4 I
GROUP   --------I----------I----------I----------I----------I
              1 I      3.00 I      5.57 I      1.40 I      4.15 I      4.05
  PREDIG        I         3 I         7 I         5 I        60 I        75
                I      9.00 I     39.00 I      7.00 I    249.00 I    304.00
                I      3.61 I      5.26 I      1.14 I      7.31 I      6.79
               -I----------I----------I----------I----------I
              2 I      3.00 I      6.36 I      9.91 I      5.96 I      6.05
  DIG           I        14 I        39 I        11 I       132 I       196
                I     42.00 I    248.00 I    109.00 I    787.00 I   1186.00
                I      2.32 I      6.53 I      6.79 I      5.07 I      5.46
               -I----------I----------I----------I----------I
              3 I      4.53 I      4.24 I      7.10 I      5.56 I      4.99
  CONTROL       I        59 I        25 I        10 I        45 I       139
                I    267.00 I    106.00 I     71.00 I    250.00 I    694.00
                I      2.34 I      3.24 I      3.31 I      3.17 I      2.95
               -I----------I----------I----------I----------I
    COLUMN TOTAL       4.18        5.54        7.19        5.43        5.33
                         76          71          26         237         410
                     318.00      393.00      187.00     1286.00     2184.00
                       2.44        5.49        5.71        5.48        5.10
```

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* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     WORKFORC  NO OF YEARS IN THE WORKFORCE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

               AREA
        MEAN I
       COUNT I  PROF PRE    VOC SPEC    PHYS SCI    ACADEMIC          ROW
         SUM I  P                                                   TOTAL
     STD DEV I         1 I         2 I         3 I         4 I
GROUP    ----I-----------I-----------I-----------I-----------I
           1 I      3.33 I     11.00 I      3.75 I      7.94 I      7.80
  PREDIG     I      3    I      7    I      4    I     51    I     65
             I     10.00 I     77.00 I     15.00 I    405.00 I    507.00
             I      3.21 I      4.04 I      3.40 I      7.16 I      6.75
            -I-----------I-----------I-----------I-----------I
           2 I      3.79 I      8.97 I      4.36 I      7.08 I      7.06
  DIG        I     14    I     38    I     11    I    131    I    194
             I     53.00 I    341.00 I     48.00 I    927.00 I   1369.00
             I      3.87 I      7.37 I      4.27 I      6.17 I      6.32
            -I-----------I-----------I-----------I-----------I
           3 I      4.44 I      5.08 I      6.44 I      5.37 I      4.99
  CONTROL    I     59    I     26    I      9    I     43    I    137
             I    262.00 I    132.00 I     58.00 I    231.00 I    683.00
             I      2.61 I      3.20 I      3.21 I      4.60 I      3.50
            -I-----------I-----------I-----------I-----------I
  COLUMN TOTAL      4.28        7.75        5.04        6.95        6.46
                   76          71          24         225         396
                  325.00      550.00      121.00     1563.00     2559.00
                    2.87        6.19        3.78        6.18        5.69


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     PREJOB    YEARS WITH PRESENT EMPLOYER
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

               AREA
        MEAN I
       COUNT I  PROF PRE    VOC SPEC    PHYS SCI    ACADEMIC          ROW
         SUM I  P                                                   TOTAL
     STD DEV I         1 I         2 I         3 I         4 I
GROUP    ----I-----------I-----------I-----------I-----------I
           1 I      1.33 I      6.80 I      1.50 I      3.14 I      3.27
  PREDIG     I      3    I      5    I      4    I     37    I     49
             I      4.00 I     34.00 I      6.00 I    116.00 I    160.00
             I      0.58 I      5.81 I      0.58 I      3.15 I      3.47
            -I-----------I-----------I-----------I-----------I
           2 I      1.79 I      4.17 I      1.45 I      2.63 I      2.80
  DIG        I     14    I     36    I     11    I    123    I    184
             I     25.00 I    150.00 I     16.00 I    324.00 I    515.00
             I      1.25 I      4.83 I      0.52 I      2.38 I      2.99
            -I-----------I-----------I-----------I-----------I
           3 I      2.44 I      2.77 I      4.89 I      2.74 I      2.76
  CONTROL    I     57    I     26    I      9    I     42    I    134
             I    139.00 I     72.00 I     44.00 I    115.00 I    370.00
             I      1.64 I      2.29 I      3.02 I      1.96 I      2.05
            -I-----------I-----------I-----------I-----------I
  COLUMN TOTAL      2.27        3.82        2.75        2.75        2.85
                   74          67          24         202         367
                  168.00      256.00       66.00      555.00     1045.00
                    1.56        4.19        2.49        2.46        2.76
```

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* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     ANNINCOM  GROSS ANNUAL INCOME
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                     AREA
              MEAN I
             COUNT I  PROF PRE    VOC SPEC    PHYS SCI    ACADEMIC        ROW
               SUM I  P                                                  TOTAL
           STD DEV I        1 I        2 I        3 I        4 I
GROUP      --------I----------I----------I----------I----------I
                 1 I 21000.00 I 16840.00 I 12375.00 I 10928.00 I 12078.24
  PREDIG           I        3 I        5 I        4 I       45 I       57
                   I 63000.00 I 84200.00 I 49500.00 I491760.00 I688460.00
                   I 21633.30 I  4327.58 I  6289.87 I  6438.20 I  7752.27
                  -I----------I----------I----------I----------I
                 2 I 23558.33 I 21378.78 I 18409.09 I 16526.11 I 18056.48
  DIG              I       12 I       37 I       11 I      126 I      186
                   I282700.00 I791015.00 I202500.00 I********* I*********
                   I  8603.64 I 11897.08 I  8505.34 I  9062.01 I  9854.68
                  -I----------I----------I----------I----------I
                 3 I 29567.79 I 18980.77 I 22000.00 I 14611.36 I 22310.87
  CONTROL          I       59 I       26 I        9 I       44 I      138
                   I********* I493500.00 I198000.00 I642900.00 I*********
                   I 11969.23 I  6062.08 I 10735.45 I  7875.25 I 11721.07
                  -I----------I----------I----------I----------I
    COLUMN TOTAL     28245.95   20128.16   18750.00   14962.55   18703.05
                           74         68         24        215        381
                   2090200.00 1368715.00  450000.00 3216950.00 7125865.00
                     12040.89    9646.94    9378.51    8592.98   10825.03


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     OCCSTAT   OCCUPATIONAL STATUS SCORE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                     AREA
              MEAN I
             COUNT I  PROF PRE    VOC SPEC    PHYS SCI    ACADEMIC        ROW
               SUM I  P                                                  TOTAL
           STD DEV I        1 I        2 I        3 I        4 I
GROUP      --------I----------I----------I----------I----------I
                 1 I    88.00 I    82.17 I    88.40 I    80.29 I    81.42
  PREDIG           I        3 I        6 I        5 I       52 I       66
                   I   264.00 I   493.00 I   442.00 I  4175.00 I  5374.00
                   I    12.12 I    16.39 I     8.35 I    11.67 I    11.97
                  -I----------I----------I----------I----------I
                 2 I    96.23 I    90.00 I    93.33 I    88.52 I    89.57
  DIG              I       13 I       37 I        9 I      129 I      188
                   I  1251.00 I  3330.00 I   840.00 I 11419.00 I 16840.00
                   I     5.12 I     9.49 I     5.36 I     9.25 I     9.13
                  -I----------I----------I----------I----------I
                 3 I    97.51 I    89.62 I    88.38 I    81.59 I    90.56
  CONTROL          I       59 I       26 I        8 I       41 I      134
                   I  5753.00 I  2330.00 I   707.00 I  3345.00 I 12135.00
                   I     4.38 I     4.57 I     7.60 I    12.17 I    10.32
                  -I----------I----------I----------I----------I
    COLUMN TOTAL        96.91      89.17      90.41      85.31      88.53
                           75         69         22        222        388
                      7268.00    6153.00    1989.00   18939.00   34349.00
                         5.18       8.94       7.05      11.06      10.56
```

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* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     SUI        SKILL UTILIZATION INDEX
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                  AREA
             MEAN I
            COUNT I   PROF PRE    VOC SPEC    PHYS SCI    ACADEMIC        ROW
              SUM I   P                                                  TOTAL
          STD DEV I          1 I         2 I         3 I         4 I
GROUP     --------I-----------I-----------I-----------I-----------I
                1 I       0.38 I      0.54 I      0.53 I      0.51 I      0.51
  PREDIG          I          3 I         5 I         4 I        58 I        70
                  I       1.14 I      2.71 I      2.12 I     29.40 I     35.38
                  I       0.29 I      0.31 I      0.28 I      0.21 I      0.22
                 -I-----------I-----------I-----------I-----------I
                2 I       0.65 I      0.70 I      0.65 I      0.64 I      0.66
  DIG             I         14 I        39 I        11 I       130 I       194
                  I       9.12 I     27.33 I      7.19 I     83.67 I    127.31
                  I       0.14 I      0.16 I      0.14 I      0.18 I      0.18
                 -I-----------I-----------I-----------I-----------I
                3 I       0.75 I      0.67 I      0.67 I      0.67 I      0.70
  CONTROL         I         58 I        26 I        10 I        46 I       140
                  I      43.62 I     17.45 I      6.67 I     30.67 I     98.40
                  I       0.14 I      0.12 I      0.13 I      0.20 I      0.16
                 -I-----------I-----------I-----------I-----------I
     COLUMN TOTAL         0.72        0.68        0.64        0.61        0.65
                            75          70          25         234         404
                         53.88       47.50       15.98      143.74      261.10
                          0.16        0.17        0.17        0.20        0.19


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     ABU        SATISFACTION WITH ABILITY UTILIZATION
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                  AREA
             MEAN I
            COUNT I   PROF PRE    VOC SPEC    PHYS SCI    ACADEMIC        ROW
              SUM I   P                                                  TOTAL
          STD DEV I          1 I         2 I         3 I         4 I
GROUP     --------I-----------I-----------I-----------I-----------I
                1 I       8.50 I      8.00 I     14.00 I     10.40 I     10.36
  PREDIG          I          2 I         7 I         5 I        60 I        74
                  I      17.00 I     56.00 I     70.00 I    624.00 I    767.00
                  I       0.71 I      5.00 I      8.60 I      5.81 I      5.91
                 -I-----------I-----------I-----------I-----------I
                2 I      19.17 I     15.53 I     18.22 I     14.98 I     15.54
  DIG             I         12 I        36 I         9 I       121 I       178
                  I     230.00 I    559.00 I    164.00 I   1813.00 I   2766.00
                  I       5.92 I      5.39 I      7.01 I      6.00 I      6.00
                 -I-----------I-----------I-----------I-----------I
                3 I      18.76 I     15.96 I     18.11 I     14.49 I     16.68
  CONTROL         I         50 I        25 I         9 I        45 I       129
                  I     938.00 I    399.00 I    163.00 I    652.00 I   2152.00
                  I       3.87 I      5.00 I      5.33 I      6.03 I      5.32
                 -I-----------I-----------I-----------I-----------I
     COLUMN TOTAL        18.52       14.91       17.26       13.67       14.92
                            64          68          23         226         381
                       1185.00     1014.00      397.00     3089.00     5685.00
                          4.59        5.65        6.69        6.25        6.19
```

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* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     INT       INTRINSIC JOB SATISFACTION
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                 AREA
          MEAN I
         COUNT I  PROF PRE   VOC SPEC   PHYS SCI   ACADEMIC      ROW
           SUM I  P                                               TOTAL
       STD DEV I         1 I        2 I        3 I        4 I
GROUP   --------I----------I----------I----------I----------I
             1 I     11.82 I    12.14 I    14.13 I    12.66 I     12.69
  PREDIG       I         2 I        7 I        5 I       59 I        73
               I     23.64 I    85.00 I    70.64 I   747.00 I    926.27
               I      0.26 I     3.97 I     6.12 I     4.48 I      4.45
              -I----------I----------I----------I----------I
             2 I     17.09 I    16.23 I    17.03 I    15.66 I     15.95
  DIG          I        11 I       35 I        8 I      107 I       161
               I    188.00 I   568.18 I   136.27 I  1675.18 I   2567.64
               I      3.68 I     3.08 I     4.64 I     3.81 I      3.69
              -I----------I----------I----------I----------I
             3 I     17.59 I    16.35 I    17.44 I    15.56 I     16.61
  CONTROL      I        44 I       23 I        9 I       42 I       118
               I    774.00 I   376.00 I   157.00 I   653.55 I   1960.54
               I      2.83 I     2.96 I     2.42 I     3.80 I      3.30
              -I----------I----------I----------I----------I
    COLUMN TOTAL     17.29      15.83      16.54      14.79       15.50
                        57         65         22        208         352
                    985.64    1029.18     363.91    3075.73     5454.45
                      3.11       3.35       4.29       4.21        4.01


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
VARIABLE AVERAGED...     GENSAT    GENERAL JOB SATISFACTION
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                 AREA
          MEAN I
         COUNT I  PROF PRE   VOC SPEC   PHYS SCI   ACADEMIC      ROW
           SUM I  P                                               TOTAL
       STD DEV I         1 I        2 I        3 I        4 I
GROUP   --------I----------I----------I----------I----------I
             1 I     25.32 I    23.76 I    26.66 I    24.11 I     24.28
  PREDIG       I         2 I        7 I        5 I       59 I        73
               I     50.64 I   166.33 I   133.30 I  1422.22 I   1772.49
               I      0.02 I     7.23 I     9.95 I     7.00 I      7.06
              -I----------I----------I----------I----------I
             2 I     32.37 I    30.04 I    33.74 I    30.22 I     30.51
  DIG          I        11 I       33 I        7 I       97 I       148
               I    356.11 I   991.46 I   236.21 I  2931.42 I   4515.21
               I      7.23 I     5.18 I     8.18 I     6.89 I      6.63
              -I----------I----------I----------I----------I
             3 I     33.20 I    30.42 I    33.99 I    30.35 I     31.72
  CONTROL      I        42 I       22 I        9 I       39 I       112
               I   1394.41 I   669.26 I   305.89 I  1183.63 I   3553.19
               I      4.87 I     6.81 I     5.94 I     6.44 I      6.04
              -I----------I----------I----------I----------I
    COLUMN TOTAL     32.75      29.47      32.16      28.40       29.55
                        55         62         21        195         333
                   1801.16    1827.06     675.40    5537.27     9840.89
                      5.47       6.28       8.00       7.37        7.11
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GROUP 1 - GROUP    EG          1 (PRE-DIG)
GROUP 2 - GROUP    EG          2 (POST-DIG)
                                                                  * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                                *                            *                            *
VARIABLE           NUMBER                STANDARD    STANDARD * F     2-TAIL *    T    DEGREES OF 2-TAIL *    T    DEGREES OF   2-TAIL
                  OF CASES     MEAN     DEVIATION      ERROR  * VALUE  PROB. *  VALUE   FREEDOM   PROB.  *  VALUE   FREEDOM      PROB.
----------------------------------------------------------------------------------------------------------------------------------------
ANNINCOM  GROSS ANNUAL INCOME                                 *              *                           *
     GROUP 1         57   12078.2422    7752.203    1026.805  *              *                           *
                                                              *  1.60  0.040 *  -4.21     243     0.000  *  -4.77   115.46      0.000
     GROUP 2        188   18042.5781    9812.387     715.642  *              *                           *
                                                              *              *                           *
----------------------------------------------------------------------------------------------------------------------------------------
WORKFORC  NO OF YEARS IN THE WORKFORCE                        *              *                           *
     GROUP 1         66       7.8182       6.698       0.824  *              *                           *
                                                              *  1.13  0.520 *   0.88     260     0.379  *   0.85   106.35      0.395
     GROUP 2        196       7.0153       6.300       0.450  *              *                           *
                                                              *              *                           *
----------------------------------------------------------------------------------------------------------------------------------------
PREJOB    YEARS WITH PRESENT EMPLOYER                         *              *                           *
     GROUP 1         50       3.3800       3.533       0.500  *              *                           *
                                                              *  1.41  0.108 *   1.19     234     0.234  *   1.08    68.79      0.283
     GROUP 2        186       2.7903       2.975       0.218  *              *                           *
                                                              *              *                           *
----------------------------------------------------------------------------------------------------------------------------------------
OCCSTAT   OCCUPATIONAL STATUS SCORE                           *              *                           *
     GROUP 1         67      81.4030      11.878       1.451  *              *                           *
                                                              *  1.69  0.007 *  -5.73     255     0.000  *  -5.06    95.65      0.000
     GROUP 2        190      89.4789       9.148       0.664  *              *                           *
                                                              *              *                           *
----------------------------------------------------------------------------------------------------------------------------------------
AGE       AGE OF RESPONDENTS                                  *              *                           *
     GROUP 1         76      33.2105       8.572       0.983  *              *                           *
                                                              *  1.33  0.122 *   0.60     274     0.547  *   0.57   120.27      0.573
     GROUP 2        200      32.5800       7.432       0.525  *              *                           *
                                                              *              *                           *
----------------------------------------------------------------------------------------------------------------------------------------
YRGRAD    YEARS SINCE HIGHEST DEGREE                          *              *                           *
     GROUP 1         75       4.0533       6.786       0.784  *              *                           *
                                                              *  1.56  0.017 *  -2.51     271     0.013  *  -2.27   111.68      0.025
     GROUP 2        198       6.0404       5.437       0.386  *              *                           *
                                                              *              *                           *
----------------------------------------------------------------------------------------------------------------------------------------
SINCEDIG  YEARS SINCE DIG                                     *              *                           *
     GROUP 1          0       0.0          0.0         0.0    *              *                           *
                                                              *  0.0   1.000 * -21.12     183     0.000  * -21.12   183.00      0.000
     GROUP 2        184       4.1522       2.667       0.197  *              *                           *
                                                              *              *                           *
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GROUP 1 - GROUP    EQ        1 (PRE-DIG)
GROUP 2 - GROUP    EQ        2 (POST-DIG)
                                                                            * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                                 *                      *                            *
VARIABLE          NUMBER              STANDARD     STANDARD      *    F     2-TAIL      *    T    DEGREES OF  2-TAIL * T     DEGREES OF   2-TAIL
                 OF CASES     MEAN   DEVIATION       ERROR       *  VALUE   PROB.       *  VALUE    FREEDOM    PROB. * VALUE   FREEDOM      PROB.
------------------------------------------------------------------------------------------------------------------------------------------
SUI        SKILL UTILIZATION INDEX                               *                      *                            *
     GROUP 1       71        0.5091        0.220       0.026     *                      *                            *
                                                                 *  1.57   0.017        *  -5.72   265       0.000   *  -5.16   104.05      0.000
     GROUP 2      196        0.6582        0.175       0.013     *                      *                            *
                                                                 *                      *                            *
------------------------------------------------------------------------------------------------------------------------------------------
ABU        SATISFACTION WITH ABILITY UTILIZATION                 *                      *                            *
     GROUP 1       74       10.3649        5.909       0.687     *                      *                            *
                                                                 *  1.03   0.905        *  -6.35   252       0.000   *  -6.39   137.80      0.000
     GROUP 2      180       15.6000        5.996       0.447     *                      *                            *
                                                                 *                      *                            *
------------------------------------------------------------------------------------------------------------------------------------------
ACH        SATISFACTION WITH ACHIEVEMENT                         *                      *                            *
     GROUP 1       74       12.7162        5.735       0.667     *                      *                            *
                                                                 *  1.42   0.062        *  -6.11   253       0.000   *  -5.68   117.05      0.000
     GROUP 2      181       17.0110        4.807       0.357     *                      *                            *
                                                                 *                      *                            *
------------------------------------------------------------------------------------------------------------------------------------------
ACT        SATISFACTION WITH WORK ACTIVITY                       *                      *                            *
     GROUP 1       74       12.8378        5.284       0.614     *                      *                            *
                                                                 *  1.18   0.375        *  -6.96   252       0.000   *  -6.72   126.37      0.000
     GROUP 2      180       17.6333        4.860       0.362     *                      *                            *
                                                                 *                      *                            *
------------------------------------------------------------------------------------------------------------------------------------------
ADV        SATISFACTION WITH ADVANCEMENT OPPORTUNIT              *                      *                            *
     GROUP 1       74        8.2838        4.312       0.501     *                      *                            *
                                                                 *  1.83   0.004        *  -7.02   248       0.000   *  -7.92   183.52      0.000
     GROUP 2      176       13.5682        5.840       0.440     *                      *                            *
                                                                 *                      *                            *
------------------------------------------------------------------------------------------------------------------------------------------
AUTH       SATISFACTION WITH AUTHORITY                           *                      *                            *
     GROUP 1       74       11.9459        4.602       0.535     *                      *                            *
                                                                 *  1.03   0.915        *  -3.89   247       0.000   *  -3.91   139.15      0.000
     GROUP 2      175       14.4514        4.663       0.352     *                      *                            *
                                                                 *                      *                            *
------------------------------------------------------------------------------------------------------------------------------------------
COMPP      SATISFACTION WITH COMPANY POLICY                      *                      *                            *
     GROUP 1       74        9.9654        3.739       0.435     *                      *                            *
                                                                 *  1.61   0.022        *  -3.83   248       0.000   *  -4.22   172.11      0.000
     GROUP 2      176       12.2784        4.737       0.357     *                      *                            *
                                                                 *                      *                            *
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GROUP 1 - GROUP     EQ         1 (PRE-DIG)
GROUP 2 - GROUP     EQ         2 (POST-DIG)
                                                                         * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                                *                                  *
VARIABLE          NUMBER                STANDARD      STANDARD  *     F   2-TAIL  *     T   DEGREES OF 2-TAIL *     T   DEGREES OF   2-TAIL
                 OF CASES      MEAN    DEVIATION        ERROR   *  VALUE   PROB.  *  VALUE    FREEDOM   PROB. *  VALUE    FREEDOM     PROB.
------------------------------------------------------------------------------------------------------------------------------------------
COMPEN     SATISFACTION WITH COMPENSATION                       *                 *                            *
      GROUP 1        74       11.2838       4.959        0.576  *                 *                            *
                                                                *   1.34   0.152  *  -3.31    247      0.001   *  -3.52    158.03      0.001
      GROUP 2       175       13.8229       5.745        0.434  *                 *                            *
                                                                *                 *                            *
------------------------------------------------------------------------------------------------------------------------------------------
COWO       SATISFACTION WITH COWORKERS                          *                 *                            *
      GROUP 1        74       14.8514       5.231        0.608  *                 *                            *
                                                                *   1.75   0.003  *  -2.54    252      0.012   *  -2.27    108.88      0.025
      GROUP 2       180       16.3633       3.954        0.295  *                 *                            *
                                                                *                 *                            *
------------------------------------------------------------------------------------------------------------------------------------------
CREAT      SATISFACTION WITH CREATIVITY                         *                 *                            *
      GROUP 1        75       12.0800       5.904        0.682  *                 *                            *
                                                                *   1.25   0.238  *  -5.24    253      0.000   *  -5.01    125.80      0.000
      GROUP 2       180       16.0222       5.282        0.394  *                 *                            *
                                                                *                 *                            *
------------------------------------------------------------------------------------------------------------------------------------------
IND        SATISFACTION WITH INDEPENDENCE                       *                 *                            *
      GROUP 1        74       13.9054       5.525        0.642  *                 *                            *
                                                                *   1.55   0.021  *  -3.86    251      0.000   *  -3.53    113.92      0.001
      GROUP 2       179       16.4581       4.443        0.332  *                 *                            *
                                                                *                 *                            *
------------------------------------------------------------------------------------------------------------------------------------------
MORAL      SATISFACTION WITH MORAL VALUES                       *                 *                            *
      GROUP 1        74       16.4054       5.224        0.607  *                 *                            *
                                                                *   1.58   0.017  *  -2.04    245      0.042   *  -1.86    114.42      0.065
      GROUP 2       173       17.6821       4.161        0.316  *                 *                            *
                                                                *                 *                            *
------------------------------------------------------------------------------------------------------------------------------------------
RECOG      SATISFACTION WITH RECOGNITION                        *                 *                            *
      GROUP 1        74       12.2838       5.653        0.657  *                 *                            *
                                                                *   1.23   0.265  *  -4.10    253      0.000   *  -3.92    123.84      0.000
      GROUP 2       181       15.2597       5.087        0.378  *                 *                            *
                                                                *                 *                            *
------------------------------------------------------------------------------------------------------------------------------------------
RESP       SATISFACTION WITH RESPONSIBILITY                     *                 *                            *
      GROUP 1        74       13.0946       5.206        0.605  *                 *                            *
                                                                *   1.23   0.281  *  -5.14    250      0.000   *  -4.93    124.94      0.000
      GROUP 2       178       16.5449       4.700        0.352  *                 *                            *
                                                                *                 *                            *
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GROUP 1 - GROUP     EQ          1 (PRE-DIG)
GROUP 2 - GROUP     EQ          2 (POST-DIG)
                                                                               * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                                   *                                      *
VARIABLE            NUMBER                  STANDARD    STANDARD   *    F     2-TAIL  *    T    DEGREES OF  2-TAIL *    T    DEGREES OF   2-TAIL
                   OF CASES       MEAN     DEVIATION      ERROR    *  VALUE   PROB.   *  VALUE    FREEDOM    PROB. *  VALUE    FREEDOM     PROB.
-----------------------------------------------------------------------------------------------------------------------------------------------
SEC         SATISFACTION WITH SECURITY                             *                  *                            *
      GROUP 1        74        10.8514       5.965        0.693    *                  *                            *
                                                                   *  1.16    0.443   *  -5.26     248      0.000  *  -5.10    128.67      0.000
      GROUP 2       176        14.9830       5.548        0.418    *                  *                            *
                                                                   *                  *                            *
-----------------------------------------------------------------------------------------------------------------------------------------------
SOC         SATISFACTION WITH SOCIAL SERVICE                       *                  *                            *
      GROUP 1        74        13.5405       5.913        0.687    *                  *                            *
                                                                   *  1.40    0.079   *  -3.00     251      0.003  *  -2.80    118.41      0.006
      GROUP 2       179        [illegible]5.7318       5.006        0.374    *                  *                            *
                                                                   *                  *                            *
-----------------------------------------------------------------------------------------------------------------------------------------------
SOCST       SATISFACTION WITH SOCIAL STATUS                        *                  *                            *
      GROUP 1        73        10.7397       5.255        0.615    *                  *                            *
                                                                   *  1.08    0.673   *  -5.53     250      0.000  *  -5.44    129.15      0.000
      GROUP 2       179        14.6648       5.055        0.378    *                  *                            *
                                                                   *                  *                            *
-----------------------------------------------------------------------------------------------------------------------------------------------
SUPHR       SATISFACTION WITH SUPERVISION  HUMAN REL               *                  *                            *
      GROUP 1        74        11.5811       5.623        0.654    *                  *                            *
                                                                   *  1.08    0.682   *  -4.18     243      0.000  *  -4.12    134.06      0.000
      GROUP 2       171        14.7661       5.414        0.414    *                  *                            *
                                                                   *                  *                            *
-----------------------------------------------------------------------------------------------------------------------------------------------
SUPTECH     SATISFACTION WITH SUPERVISION  TECHNICAL               *                  *                            *
      GROUP 1        74        12.4324       5.557        0.646    *                  *                            *
                                                                   *  1.20    0.335   *  -3.69     247      0.000  *  -3.56    126.86      0.001
      GROUP 2       175        15.1029       5.071        0.383    *                  *                            *
                                                                   *                  *                            *
-----------------------------------------------------------------------------------------------------------------------------------------------
VER         SATISFACTION WITH VARIETY OF WORK DUTIES               *                  *                            *
      GROUP 1        74        11.9595       5.344        0.621    *                  *                            *
                                                                   *  1.35    0.113   *  -6.42     252      0.000  *  -6.03    119.70      0.000
      GROUP 2       180        16.2389       4.599        0.343    *                  *                            *
                                                                   *                  *                            *
-----------------------------------------------------------------------------------------------------------------------------------------------
WORKCON     SATISFACTION WITH WORKING CONDITIONS                   *                  *                            *
      GROUP 1        74        12.5811       5.594        0.650    *                  *                            *
                                                                   *  1.17    0.401   *  -4.00     253      0.000  *  -3.87    126.61      0.000
      GROUP 2       181        15.5028       5.169        0.384    *                  *                            *
                                                                   *                  *                            *
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GROUP 1 - GROUP    EQ        1(PRE-DIG)
GROUP 2 - GROUP    EQ        2(POST-DIG)
                                                                      * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                             *                                 *
VARIABLE          NUMBER              STANDARD    STANDARD   *    F    2-TAIL  *    T    DEGREES OF 2-TAIL *    T    DEGREES OF  2-TAIL
                 OF CASES      MEAN   DEVIATION     ERROR    *  VALUE  PROB.   *  VALUE   FREEDOM   PROB.  *  VALUE   FREEDOM    PROB.
------------------------------------------------------------------------------------------------------------------------------------
INT       INTRINSIC JOB SATISFACTION                         *                 *                           *
     GROUP 1        73      12.6886      4.448      0.521    *                 *                           *
                                                             *   1.45  0.057   *  -5.95    234      0.000  *  -5.55   118.45     0.000
     GROUP 2       163      15.9966      3.699      0.290    *                 *                           *
                                                             *                 *                           *
------------------------------------------------------------------------------------------------------------------------------------
EXT       EXTRINSIC JOB SATISFACTION                         *                 *                           *
     GROUP 1        74      11.5615      3.505      0.407    *                 *                           *
                                                             *   1.14  0.533   *  -5.96    231      0.000  *  -6.11   151.34     0.000
     GROUP 2       159      14.6393      3.743      0.297    *                 *                           *
                                                             *                 *                           *
------------------------------------------------------------------------------------------------------------------------------------
GENSAT    GENERAL JOB SATISFACTION                           *                 *                           *
     GROUP 1        73      24.2807      7.057      0.826    *                 *                           *
                                                             *   1.13  0.518   *  -6.52    221      0.000  *  -6.38   135.03     0.000
     GROUP 2       150      30.5821      6.626      0.541    *                 *                           *
                                                             *                 *                           *
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GROUP 1 - GROUP    EQ          2 (POST-DIG)
GROUP 2 - GROUP    EQ          3 (NON-DIG)
                                                                            * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                               *                    *                               *
VARIABLE        NUMBER                 STANDARD    STANDARD    *     F   2-TAIL     *    T    DEGREES OF  2-TAIL    *    T    DEGREES OF   2-TAIL
              OF CASES       MEAN      DEVIATION      ERROR    *  VALUE   PROB.     *  VALUE    FREEDOM    PROB.    *  VALUE    FREEDOM      PROB.
-----------------------------------------------------------------------------------------------------------------------------------------------
ANNINCOM  GROSS ANNUAL INCOME                                  *                    *                               *
     GROUP 1      188   18042.5781   9812.387     715.642      *                    *                               *
                                                               *   1.43   0.023     *  -3.63     327       0.000    *  -3.54    269.88       0.000
     GROUP 2      141   22363.8281  11729.663     987.365      *                    *                               *
                                                               *                    *                               *
-----------------------------------------------------------------------------------------------------------------------------------------------
WORKFORC  NO OF YEARS IN THE WORKFORCE                         *                    *                               *
     GROUP 1      196       7.0153      6.300       0.450      *                    *                               *
                                                               *   3.28   0.000     *   3.45     334       0.001    *   3.78    316.11       0.000
     GROUP 2      140       4.9857      3.477       0.294      *                    *                               *
                                                               *                    *                               *
-----------------------------------------------------------------------------------------------------------------------------------------------
PREJOB    YEARS WITH PRESENT EMPLOYER                          *                    *                               *
     GROUP 1      166       2.7963      2.975       0.218      *                    *                               *
                                                               *   2.15   0.000     *   0.13     321       0.896    *   0.14    319.24       0.890
     GROUP 2      137       2.7518      2.028       0.173      *                    *                               *
                                                               *                    *                               *
-----------------------------------------------------------------------------------------------------------------------------------------------
OCCSTAT   OCCUPATIONAL STATUS SCORE                            *                    *                               *
     GROUP 1      190      89.4789      9.148       0.664      *                    *                               *
                                                               *   1.25   0.159     *  -0.97     325       0.332    *  -0.95    272.96       0.341
     GROUP 2      137      90.5255     10.221       0.873      *                    *                               *
                                                               *                    *                               *
-----------------------------------------------------------------------------------------------------------------------------------------------
AGE       AGE OF RESPONDENTS                                   *                    *                               *
     GROUP 1      203      32.5800      7.432       0.525      *                    *                               *
                                                               *   5.03   0.000     *   3.47     343       0.001    *   3.86    292.63       0.000
     GROUP 2      145      30.2896      3.312       0.275      *                    *                               *
                                                               *                    *                               *
-----------------------------------------------------------------------------------------------------------------------------------------------
YRGRAD    YEARS SINCE HIGHEST DEGREE                           *                    *                               *
     GROUP 1      198       6.0404      5.437       0.386      *                    *                               *
                                                               *   3.44   0.000     *   2.10     337       0.037    *   2.30    316.40       0.022
     GROUP 2      141       4.9858      2.930       0.247      *                    *                               *
                                                               *                    *                               *
-----------------------------------------------------------------------------------------------------------------------------------------------
SINCEDIG  YEARS SINCE DIG                                      *                    *                               *
     GROUP 1      184       4.1522      2.667       0.197      *                    *                               *
                                                               *    0.0   1.000     *  21.12     183       0.000    *  21.12    183.00       0.000
     GROUP 2        0          0.0        0.0         0.0      *                    *                               *
                                                               *                    *                               *
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GROUP 1 - GROUP    EQ         2 (POST-DIG)
GROUP 2 - GROUP    EQ         3 (NON-DIG)
                                                                           * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                                 *         *                          *
VARIABLE          NUMBER               STANDARD     STANDARD     *   F  2-TAIL *   T  DEGREES OF 2-TAIL *   T    DEGREES OF  2-TAIL
                 OF CASES     MEAN    DEVIATION      ERROR       * VALUE PROB. * VALUE  FREEDOM   PROB. * VALUE   FREEDOM    PROB.
----------------------------------------------------------------------------------------------------------------------------------
SUI       SKILL UTILIZATION INDEX                                *             *                         *
    GROUP 1      196       0.6582        0.175        0.013      *             *                         *
                                                                 *  1.17 0.323 * -2.41    337     0.017  * -2.44   318.71     0.015
    GROUP 2      143       0.7031        0.162        0.014      *             *                         *
                                                                 *             *                         *
----------------------------------------------------------------------------------------------------------------------------------
ABU       SATISFACTION WITH ABILITY UTILIZATION                  *             *                         *
    GROUP 1      180      15.6600        5.996        0.447      *             *                         *
                                                                 *  1.28 0.132 * -1.78    310     0.076  * -1.81   299.42     0.071
    GROUP 2      132      16.7651        5.296        0.461      *             *                         *
                                                                 *             *                         *
----------------------------------------------------------------------------------------------------------------------------------
ACH       SATISFACTION WITH ACHIEVEMENT                          *             *                         *
    GROUP 1      181      17.6110        4.807        0.357      *             *                         *
                                                                 *  1.28 0.135 * -0.83    311     0.406  * -0.85   299.64     0.397
    GROUP 2      132      17.4470        4.250        0.370      *             *                         *
                                                                 *             *                         *
----------------------------------------------------------------------------------------------------------------------------------
ACT       SATISFACTION WITH WORK ACTIVITY                        *             *                         *
    GROUP 1      180      17.6333        4.866        0.362      *             *                         *
                                                                 *  1.25 0.179 *  0.61    308     0.544  *  0.62   294.23     0.536
    GROUP 2      130      17.3077        4.347        0.381      *             *                         *
                                                                 *             *                         *
----------------------------------------------------------------------------------------------------------------------------------
ADV       SATISFACTION WITH ADVANCEMENT OPPORTUNIT               *             *                         *
    GROUP 1      176      13.5682        5.840        0.440      *             *                         *
                                                                 *  1.39 0.046 * -2.02    304     0.045  * -2.07   298.32     0.046
    GROUP 2      130      14.8462        4.945        0.434      *             *                         *
                                                                 *             *                         *
----------------------------------------------------------------------------------------------------------------------------------
AUTH      SATISFACTION WITH AUTHORITY                            *             *                         *
    GROUP 1      175      14.4514        4.663        0.352      *             *                         *
                                                                 *  1.29 0.121 * -2.34    305     0.020  * -2.38   297.85     0.018
    GROUP 2      132      15.6439        4.100        0.357      *             *                         *
                                                                 *             *                         *
----------------------------------------------------------------------------------------------------------------------------------
COMPP     SATISFACTION WITH COMPANY POLICY                       *             *                         *
    GROUP 1      176      12.2784        4.737        0.357      *             *                         *
                                                                 *  1.39 0.051 * -1.32    303     0.187  * -1.36   296.41     0.176
    GROUP 2      129      12.9612        4.024        0.354      *             *                         *
                                                                 *             *                         *
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GROUP 1 - GROUP     EQ        2 (POST-DIG)
GROUP 2 - GROUP     EQ        3 (NON-DIG)

                                                                      * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
VARIABLE          NUMBER                 STANDARD     STANDARD  *                 *                                  *
                 OF CASES      MEAN      DEVIATION      ERROR    *    F     2-TAIL  *    T    DEGREES OF 2-TAIL *     T     DEGREES OF   2-TAIL
                                                                 *  VALUE    PROB.  *  VALUE    FREEDOM    PROB. *   VALUE     FREEDOM      PROB.
--------------------------------------------------------------------------------------------------------------------------------------------
COMPEN    SATISFACTION WITH COMPENSATION
     GROUP 1      175       13.8229       5.745       0.434   *                 *                              *
                                                              *                 *                              *
     GROUP 2      132       14.3712       5.073       0.442   *   1.28  0.133   *  -0.87    305     0.385   *  -0.89    297.48     0.377
                                                              *                 *                              *
--------------------------------------------------------------------------------------------------------------------------------------------
COWO      SATISFACTION WITH COWORKERS
     GROUP 1      180       16.3833       3.954       0.295   *                 *                              *
                                                              *                 *                              *
     GROUP 2      132       16.4545       4.031       0.351   *   1.04  0.806   *  -0.16    310     0.876   *  -0.16    279.31     0.877
                                                              *                 *                              *
--------------------------------------------------------------------------------------------------------------------------------------------
CREAT     SATISFACTION WITH CREATIVITY
     GROUP 1      180       16.0222       5.282       0.394   *                 *                              *
                                                              *                 *                              *
     GROUP 2      130       16.1846       4.767       0.418   *   1.23  0.216   *  -0.28    308     0.781   *  -0.28    293.11     0.778
                                                              *                 *                              *
--------------------------------------------------------------------------------------------------------------------------------------------
IND       SATISFACTION WITH INDEPENDENCE
     GROUP 1      179       16.4581       4.443       0.332   *                 *                              *
                                                              *                 *                              *
     GROUP 2      131       16.0611       4.113       0.359   *   1.17  0.351   *   0.80    308     0.423   *   0.81    291.56     0.418
                                                              *                 *                              *
--------------------------------------------------------------------------------------------------------------------------------------------
MORAL     SATISFACTION WITH MORAL VALUES
     GROUP 1      173       17.6821       4.161       0.316   *                 *                              *
                                                              *                 *                              *
     GROUP 2      128       18.3203       3.978       0.352   *   1.09  0.595   *  -1.34    299     0.181   *  -1.35    280.23     0.178
                                                              *                 *                              *
--------------------------------------------------------------------------------------------------------------------------------------------
RECOG     SATISFACTION WITH RECOGNITION
     GROUP 1      181       15.2597       5.087       0.378   *                 *                              *
                                                              *                 *                              *
     GROUP 2      132       15.0606       4.429       0.385   *   1.32  0.093   *   0.36    311     0.719   *   0.37    301.34     0.713
                                                              *                 *                              *
--------------------------------------------------------------------------------------------------------------------------------------------
RESP      SATISFACTION WITH RESPONSIBILITY
     GROUP 1      178       16.5449       4.700       0.352   *                 *                              *
                                                              *                 *                              *
     GROUP 2      132       16.8636       3.940       0.343   *   1.42  0.033   *  -0.63    308     0.528   *  -0.65    303.35     0.517
                                                              *                 *                              *
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GROUP 1 - GROUP     EQ          2 (POST-DIG)
GROUP 2 - GROUP     EQ          3 (NON-DIG)
                                                                              * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                                *             *                          *
VARIABLE          NUMBER              STANDARD      STANDARD    *    F   2-TAIL   *   T   DEGREES OF 2-TAIL *   T   DEGREES OF   2-TAIL
                 OF CASES     MEAN   DEVIATION        ERROR     * VALUE  PROB.  * VALUE   FREEDOM   PROB. * VALUE   FREEDOM     PROB.
-----------------------------------------------------------------------------------------------------------------------------------
SEC       SATISFACTION WITH SECURITY                            *             *                          *
     GROUP 1      176      14.9830       5.548        0.418     *             *                          *
                                                                *  1.20  0.275 *  -2.02    304     0.045 *  -2.04   290.65      0.042
     GROUP 2      130      16.2368       5.066        0.444     *             *                          *
                                                                *             *                          *
-----------------------------------------------------------------------------------------------------------------------------------
SJC       SATISFACTION WITH SOCIAL SERVICE                      *             *                          *
     GROUP 1      179      15.7318       5.006        0.374     *             *                          *
                                                                *  1.16  0.362 *  -0.90    308     0.367 *  -0.91   291.33      0.361
     GROUP 2      131      16.2366       4.642        0.406     *             *                          *
                                                                *             *                          *
-----------------------------------------------------------------------------------------------------------------------------------
SOCST     SATISFACTION WITH SOCIAL STATUS                       *             *                          *
     GROUP 1      179      14.6648       5.055        0.378     *             *                          *
                                                                *  1.30  0.111 *  -0.97    308     0.334 *  -0.99   298.11      0.325
     GROUP 2      131      15.1985       4.430        0.387     *             *                          *
                                                                *             *                          *
-----------------------------------------------------------------------------------------------------------------------------------
SUPHR     SATISFACTION WITH SUPERVISION  HUMAN REL              *             *                          *
     GROUP 1      171      14.7661       5.414        0.414     *             *                          *
                                                                *  1.32  0.103 *  -0.23    296     0.817 *  -0.24   288.46      0.813
     GROUP 2      127      14.9055       4.718        0.419     *             *                          *
                                                                *             *                          *
-----------------------------------------------------------------------------------------------------------------------------------
SUPTECH   SATISFACTION WITH SUPERVISION  TECHNICAL              *             *                          *
     GROUP 1      175      15.1029       5.071        0.383     *             *                          *
                                                                *  1.33  0.090 *  -1.05    304     0.293 *  -1.08   297.32      0.283
     GROUP 2      131      15.6870       4.463        0.385     *             *                          *
                                                                *             *                          *
-----------------------------------------------------------------------------------------------------------------------------------
VER       SATISFACTION WITH VARIETY OF WORK DUTIES              *             *                          *
     GROUP 1      180      16.2389       4.599        0.343     *             *                          *
                                                                *  1.03  0.857 *   0.34    310     0.734 *   0.34   284.83      0.733
     GROUP 2      132      16.6636       4.529        0.394     *             *                          *
                                                                *             *                          *
-----------------------------------------------------------------------------------------------------------------------------------
WORKCON   SATISFACTION WITH WORKING CONDITIONS                  *             *                          *
     GROUP 1      181      15.5028       5.169        0.384     *             *                          *
                                                                *  1.15  0.401 *   0.00    311     0.996 *   0.00   292.85      0.996
     GROUP 2      132      15.5606       4.823        0.420     *             *                          *
                                                                *             *                          *
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GROUP 1 - GROUP    EQ        2 (POST-DIG)
GROUP 2 - GROUP    EQ        3 (NON-DIG)

                                                               * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
VARIABLE          NUMBER                STANDARD    STANDARD * *                          *
                 OF CASES     MEAN     DEVIATION      ERROR  *    F    2-TAIL *    T    DEGREES OF 2-TAIL *    T    DEGREES OF  2-TAIL
                                                             *  VALUE   PROB. *  VALUE    FREEDOM   PROB. *  VALUE    FREEDOM    PROB.
---------------------------------------------------------------------------------------------------------------------------------------
INT        INTRINSIC JOB SATISFACTION                        *                *                           *
      GROUP 1     163      15.9966       3.699      0.290    *                *                           *
                                                             *  1.20   0.149  *  -1.52     282      0.129 *  -1.55    273.61     0.122
      GROUP 2     121      16.6393       3.265      0.297    *                *                           *
                                                             *                *                           *
---------------------------------------------------------------------------------------------------------------------------------------
EXT        EXTRINSIC JOB SATISFACTION                        *                *                           *
      GROUP 1     159      14.6393       3.743      0.297    *                *                           *
                                                             *  1.34   0.088  *  -1.10     279      0.270 *  -1.13    275.16     0.261
      GROUP 2     122      15.1683       3.228      0.292    *                *                           *
                                                             *                *                           *
---------------------------------------------------------------------------------------------------------------------------------------
GENSAT     GENERAL JOB SATISFACTION                          *                *                           *
      GROUP 1     150      30.5821       6.626      0.541    *                *                           *
                                                             *  1.22   0.265  *  -1.49     262      0.136 *  -1.51    254.08     0.131
      GROUP 2     114      31.7635       5.997      0.562    *                *                           *
                                                             *                *                           *
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GROUP 1 - GROUP    EQ       2   (POST-DIG)              NON-DOCTORS/LAWYERS UNDER AGE 36
GROUP 2 - GROUP    EQ       3   (NON-DIG)
                                                                          * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                                *                  *                           *
VARIABLE          NUMBER                  STANDARD    STANDARD  *    F   2-TAIL  *    T   DEGREES OF 2-TAIL *    T    DEGREES OF  2-TAIL
                 OF CASES       MEAN     DEVIATION       ERROR  *  VALUE  PROB.  *  VALUE   FREEDOM   PROB. *  VALUE   FREEDOM     PROB.
----------------------------------------------------------------------------------------------------------------------------------------
ANNINCOM  GROSS ANNUAL INCOME                                   *                *                          *
      GROUP 1      137   17200.0352   9574.152     827.975     *                *                          *
                                                                *  1.40  0.107   *   0.30    213     0.764  *   0.32    162.82     0.753
      GROUP 2       78   16012.8203   8095.832     916.673     *                *                          *
                                                                *                *                          *
----------------------------------------------------------------------------------------------------------------------------------------
WORKFORC  NO OF YEARS IN THE WORKFORCE                          *                *                          *
      GROUP 1      138       5.6652      3.525       0.300     *                *                          *
                                                                *  1.50  0.051   *  -0.03    213     0.978  *  -0.03    184.90     0.977
      GROUP 2       77       5.0779      2.873       0.327     *                *                          *
                                                                *                *                          *
----------------------------------------------------------------------------------------------------------------------------------------
PRLJOB    YEARS WITH PRESENT EMPLOYER                           *                *                          *
      GROUP 1      131       2.4809      2.244       0.196     *                *                          *
                                                                *  1.04  0.823   *  -1.51    205     0.132  *  -1.50    154.13     0.135
      GROUP 2       76       2.9737      2.292       0.263     *                *                          *
                                                                *                *                          *
----------------------------------------------------------------------------------------------------------------------------------------
OCCSTAT   OCCUPATIONAL STATUS SCORE                             *                *                          *
      GROUP 1      135      88.3778      9.590       0.825     *                *                          *
                                                                *  1.18  0.397   *   2.34    207     0.020  *   2.28    139.90     0.024
      GROUP 2       74      85.0270     10.436       1.213     *                *                          *
                                                                *                *                          *
----------------------------------------------------------------------------------------------------------------------------------------
AGE       AGE OF RESPONDENTS                                    *                *                          *
      GROUP 1      142      29.4225      3.560       0.299     *                *                          *
                                                                *  1.39  0.106   *  -0.41    221     0.679  *  -0.43    189.56     0.665
      GROUP 2       81      29.6173      3.019       0.335     *                *                          *
                                                                *                *                          *
----------------------------------------------------------------------------------------------------------------------------------------
YRGRAD    YEARS SINCE HIGHEST DEGREE                            *                *                          *
      GROUP 1      140       4.7071      3.026       0.256     *                *                          *
                                                                *  1.14  0.513   *  -1.25    217     0.212  *  -1.23    153.53     0.221
      GROUP 2       79       5.2532      3.224       0.363     *                *                          *
                                                                *                *                          *
----------------------------------------------------------------------------------------------------------------------------------------
SINCEDIG  YEARS SINCE DIG                                       *                *                          *
      GROUP 1      132       4.1288      2.700       0.235     *                *                          *
                                                                *  0.0   1.000   *  17.57    131     0.000  *  17.57    131.00     0.000
      GROUP 2        0       0.0         0.0         0.0       *                *                          *
                                                                *                *                          *
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GROUP 1 - GROUP    EQ        2   (POST-DIG)
GROUP 2 - GROUP    EQ        3   (NON-DIG)                NON-DOCTORS/LAWYERS UNDER AGE 36

                                                                    * POOLED VARIANCE ESTIMATE  * SEPARATE VARIANCE ESTIMATE
VARIABLE         NUMBER                 STANDARD   STANDARD *              *                             *
                 OF CASES      MEAN    DEVIATION     ERROR  *   F   2-TAIL *   T   DEGREES OF  2-TAIL *    T    DEGREES OF  2-TAIL
                                                            * VALUE  PROB. * VALUE   FREEDOM    PROB. *  VALUE    FREEDOM    PROB.
------------------------------------------------------------------------------------------------------------------------------------
SUI        SKILL UTILIZATION INDEX                          *              *                          *
     GROUP 1     141        0.6474      0.181      0.015    *              *                          *
                                                            *  1.21  0.350 * -1.06    220      0.292  *  -1.08    180.16     0.280
     GROUP 2      81        0.6731      0.164      0.018    *              *                          *
                                                            *              *                          *
------------------------------------------------------------------------------------------------------------------------------------
ABU        SATISFACTION WITH ABILITY UTILIZATION            *              *                          *
     GROUP 1     130       15.1077      5.905      0.518    *              *                          *
                                                            *  1.08  0.716 * -0.42    206      0.672  *  -0.43    167.29     0.669
     GROUP 2      78       15.4615      5.679      0.643    *              *                          *
                                                            *              *                          *
------------------------------------------------------------------------------------------------------------------------------------
ACH        SATISFACTION WITH ACHIEVEMENT                    *              *                          *
     GROUP 1     131       16.7252      4.586      0.401    *              *                          *
                                                            *  1.14  0.533 * -0.19    207      0.850  *  -0.19    170.50     0.848
     GROUP 2      78       16.8461      4.295      0.486    *              *                          *
                                                            *              *                          *
------------------------------------------------------------------------------------------------------------------------------------
ACT        SATISFACTION WITH WORK ACTIVITY                  *              *                          *
     GROUP 1     130       17.5923      4.715      0.414    *              *                          *
                                                            *  1.23  0.323 *  0.90    204      0.368  *   0.93    170.57     0.355
     GROUP 2      76       17.0000      4.246      0.487    *              *                          *
                                                            *              *                          *
------------------------------------------------------------------------------------------------------------------------------------
ADV        SATISFACTION WITH ADVANCEMENT OPPORTUNIT         *              *                          *
     GROUP 1     126       13.8095      5.815      0.518    *              *                          *
                                                            *  1.27  0.254 * -0.28    201      0.776  *  -0.29    175.63     0.770
     GROUP 2      77       14.0390      5.154      0.587    *              *                          *
                                                            *              *                          *
------------------------------------------------------------------------------------------------------------------------------------
AUTH       SATISFACTION WITH AUTHORITY                      *              *                          *
     GROUP 1     127       14.1181      4.496      0.399    *              *                          *
                                                            *  1.04  0.829 * -2.16    203      0.032  *  -2.15    160.48     0.033
     GROUP 2      78       15.5256      4.589      0.520    *              *                          *
                                                            *              *                          *
------------------------------------------------------------------------------------------------------------------------------------
COMPP      SATISFACTION WITH COMPANY POLICY                 *              *                          *
     GROUP 1     126       12.2143      4.759      0.424    *              *                          *
                                                            *  1.15  0.513 * -1.05    201      0.293  *  -1.07    169.44     0.285
     GROUP 2      77       12.9221      4.439      0.506    *              *                          *
                                                            *              *                          *
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GROUP 1 - GROUP     EG          2  (POST-DIG)                NON-DOCTORS/LAWYERS UNDER AGE 36
GROUP 2 - GROUP     EG          3  (NON-DIG)
                                                                              * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                                  *                                  *                                  *
VARIABLE           NUMBER                 STANDARD     STANDARD   *      F    2-TAIL  *      T   DEGREES OF  2-TAIL *      T   DEGREES OF   2-TAIL
                  OF CASES      MEAN     DEVIATION       ERROR    *  VALUE     PROB.  *  VALUE     FREEDOM    PROB.  *  VALUE     FREEDOM     PROB.
-----------------------------------------------------------------------------------------------------------------------------------------------
COMPEN     SATISFACTION WITH COMPENSATION                         *                   *                              *
     GROUP 1       127       13.9921         5.523       0.490    *                   *                              *
                                                                  *   1.03   0.883    *    0.23      203      0.818  *    0.23      161.36      0.818
     GROUP 2        78       13.6077         5.597       0.634    *                   *                              *
                                                                  *                   *                              *
-----------------------------------------------------------------------------------------------------------------------------------------------
COWO       SATISFACTION WITH COWORKERS                            *                   *                              *
     GROUP 1       130       16.4538         3.953       0.347    *                   *                              *
                                                                  *   1.06   0.763    *    0.01      206      0.993  *    0.01      158.54      0.993
     GROUP 2        76       16.4487         4.070       0.461    *                   *                              *
                                                                  *                   *                              *
-----------------------------------------------------------------------------------------------------------------------------------------------
CREAT      SATISFACTION WITH CREATIVITY                           *                   *                              *
     GROUP 1       130       15.7308         5.217       0.458    *                   *                              *
                                                                  *   1.06   0.805    *   -0.38      204      0.705  *   -0.38      160.61      0.703
     GROUP 2        76       16.0132         5.077       0.582    *                   *                              *
                                                                  *                   *                              *
-----------------------------------------------------------------------------------------------------------------------------------------------
IND        SATISFACTION WITH INDEPENDENCE                         *                   *                              *
     GROUP 1       129       16.1860         4.355       0.383    *                   *                              *
                                                                  *   1.10   0.660    *    0.87      205      0.387  *    0.88      168.52      0.382
     GROUP 2        78       15.6538         4.156       0.471    *                   *                              *
                                                                  *                   *                              *
-----------------------------------------------------------------------------------------------------------------------------------------------
MORAL      SATISFACTION WITH MORAL VALUES                         *                   *                              *
     GROUP 1       126       17.6508         4.048       0.361    *                   *                              *
                                                                  *   1.01   0.962    *   -0.84      202      0.400  *   -0.84      164.12      0.400
     GROUP 2        78       18.1410         4.022       0.455    *                   *                              *
                                                                  *                   *                              *
-----------------------------------------------------------------------------------------------------------------------------------------------
RECOG      SATISFACTION WITH RECOGNITION                          *                   *                              *
     GROUP 1       131       15.0382         5.207       0.455    *                   *                              *
                                                                  *   1.39   0.117    *    0.42      207      0.676  *    0.44      182.93      0.664
     GROUP 2        78       14.7436         4.418       0.500    *                   *                              *
                                                                  *                   *                              *
-----------------------------------------------------------------------------------------------------------------------------------------------
RESP       SATISFACTION WITH RESPONSIBILITY                       *                   *                              *
     GROUP 1       129       16.4031         4.607       0.406    *                   *                              *
                                                                  *   1.27   0.256    *   -0.36      205      0.723  *   -0.37      177.59      0.715
     GROUP 2        78       16.6282         4.090       0.463    *                   *                              *
                                                                  *                   *                              *
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GROUP 1 - GROUP    EQ        2  (POST-DIG)
GROUP 2 - GROUP    EQ        3  (NON-DIG)                    NON-DOCTORS/LAWYERS UNDER AGE 36

                                                                         * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
VARIABLE         NUMBER                  STANDARD     STANDARD  *                *                            *
                OF CASES     MEAN       DEVIATION       ERROR   *   F    2-TAIL  *   T    DEGREES OF  2-TAIL  *   T    DEGREES OF   2-TAIL
                                                                *  VALUE  PROB.  *  VALUE   FREEDOM    PROB.  *  VALUE   FREEDOM     PROB.
------------------------------------------------------------------------------------------------------------------------------------------
SEC        SATISFACTION WITH SECURITY
     GROUP 1      127      15.5039       5.108       0.453  *                *                            *
     GROUP 2       76      15.6579       5.395       0.619  *  1.12  0.583  *  -0.20    201      0.839  *  -0.20   151.16      0.841
                                                            *                *                            *
------------------------------------------------------------------------------------------------------------------------------------------
SOC        SATISFACTION WITH SOCIAL SERVICE
     GROUP 1      130      15.3385       4.895       0.429  *                *                            *
     GROUP 2       78      15.4231       4.398       0.498  *  1.24  0.306  *  -0.13    206      0.900  *  -0.13   175.99      0.898
                                                            *                *                            *
------------------------------------------------------------------------------------------------------------------------------------------
SOCST      SATISFACTION WITH SOCIAL STATUS
     GROUP 1      130      14.4231       4.973       0.436  *                *                            *
     GROUP 2       77      14.2338       4.533       0.517  *  1.20  0.380  *   0.27    205      0.785  *   0.28   171.59      0.780
                                                            *                *                            *
------------------------------------------------------------------------------------------------------------------------------------------
SUPHR      SATISFACTION WITH SUPERVISION  HUMAN REL
     GROUP 1      122      14.9262       5.584       0.506  *                *                            *
     GROUP 2       76      15.2105       4.973       0.570  *  1.26  0.278  *  -0.36    196      0.717  *  -0.37   172.95      0.710
                                                            *                *                            *
------------------------------------------------------------------------------------------------------------------------------------------
SUPTECH    SATISFACTION WITH SUPERVISION  TECHNICAL
     GROUP 1      127      15.1102       5.054       0.448  *                *                            *
     GROUP 2       77      15.3636       4.504       0.513  *  1.26  0.276  *  -0.36    202      0.718  *  -0.37   174.86      0.711
                                                            *                *                            *
------------------------------------------------------------------------------------------------------------------------------------------
VAR        SATISFACTION WITH VARIETY OF WORK DUTIES
     GROUP 1      130      16.0692       4.551       0.399  *                *                            *
     GROUP 2       78      15.6410       4.960       0.562  *  1.19  0.388  *   0.64    206      0.526  *   0.62   151.41      0.535
                                                            *                *                            *
------------------------------------------------------------------------------------------------------------------------------------------
WORKCON    SATISFACTION WITH WORKING CONDITIONS
     GROUP 1      131      15.3893       5.253       0.459  *                *                            *
     GROUP 2       78      15.9359       4.958       0.561  *  1.12  0.584  *  -0.74    207      0.458  *  -0.75   169.49      0.452
                                                            *                *                            *
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GROUP 1 - GROUP     EQ         2 (POST-DIG)              NON-DOCTORS/LAWYERS UNDER AGE 36
GROUP 2 - GROUP     EQ         3 (NON-DIG)

                                                                     * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                           *         *                          *
VARIABLE         NUMBER              STANDARD    STANDARD  *    F   2-TAIL *    T  DEGREES OF 2-TAIL *    T   DEGREES OF   2-TAIL
               OF CASES      MEAN   DEVIATION       ERROR  *  VALUE  PROB. *  VALUE  FREEDOM   PROB. *  VALUE   FREEDOM     PROB.
-----------------------------------------------------------------------------------------------------------------------------------
INT       INTRINSIC JOB SATISFACTION                       *               *                          *
     GROUP 1      119     15.7234       3.563      0.327   *               *                          *
                                                           *  1.09   0.696 *  -0.72   190     0.470   *  -0.73    157.54     0.466
     GROUP 2       73     16.1008       3.412      0.399   *               *                          *
                                                           *               *                          *
-----------------------------------------------------------------------------------------------------------------------------------
EXT       EXTRINSIC JOB SATISFACTION                       *               *                          *
     GROUP 1      115     14.7168       3.583      0.334   *               *                          *
                                                           *  1.00   0.997 *  -0.20   185     0.845   *  -0.20    151.14     0.845
     GROUP 2       72     14.8225       3.575      0.421   *               *                          *
                                                           *               *                          *
-----------------------------------------------------------------------------------------------------------------------------------
GENSAT    GENERAL JOB SATISFACTION                         *               *                          *
     GROUP 1      109     30.3525       6.407      0.614   *               *                          *
                                                           *  1.03   0.871 *  -0.60   176     0.551   *  -0.60    143.08     0.552
     GROUP 2       69     30.9457       6.510      0.784   *               *                          *
                                                           *               *                          *
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GROUP 1 - SEX      EQ        MEN
GROUP 2 - SEX      EQ        WOMEN
                                                            POST-DIG GROUP
                                                                      * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                           *                     *                            *
VARIABLE           NUMBER               STANDARD    STANDARD *     F   2-TAIL *    T    DEGREES OF  2-TAIL *    T    DEGREES OF  2-TAIL
                  OF CASES      MEAN   DEVIATION      ERROR  *  VALUE   PROB. *  VALUE   FREEDOM     PROB. *  VALUE   FREEDOM     PROB.
----------------------------------------------------------------------------------------------------------------------------------------
ANNINCOM  GROSS ANNUAL INCOME                                *                *                            *
     GROUP 1        137   19196.3867  10877.922    929.364   *                *                            *
                                                             *   4.77   0.000 *   2.69     186       0.008 *   3.66    178.41      0.000
     GROUP 2         51   14943.1367   4980.754    697.445   *                *                            *
                                                             *                *                            *
----------------------------------------------------------------------------------------------------------------------------------------
WORKFORC  NO OF YEARS IN THE WORKFORCE                       *                *                            *
     GROUP 1        146       6.7357      6.278      0.531   *                *                            *
                                                             *   1.02   0.888 *  -0.98     194       0.327 *  -0.98    100.28      0.331
     GROUP 2         56       7.7143      6.355      0.849   *                *                            *
                                                             *                *                            *
----------------------------------------------------------------------------------------------------------------------------------------
PREJOB     YEARS WITH PRESENT EMPLOYER                       *                *                            *
     GROUP 1        135       2.5926      2.558      0.220   *                *                            *
                                                             *   2.27   0.000 *  -1.48     184       0.141 *  -1.24     67.37      0.220
     GROUP 2         51       3.3137      3.850      0.539   *                *                            *
                                                             *                *                            *
----------------------------------------------------------------------------------------------------------------------------------------
OCCSTAT   OCCUPATIONAL STATUS SCORE                          *                *                            *
     GROUP 1        135      89.3637     10.079      0.867   *                *                            *
                                                             *   2.50   0.000 *  -0.41     188       0.680 *  -0.50    155.27      0.621
     GROUP 2         55      89.9091      6.369      0.859   *                *                            *
                                                             *                *                            *
----------------------------------------------------------------------------------------------------------------------------------------
AGE        AGE OF RESPONDENTS                                *                *                            *
     GROUP 1        144      31.6042      6.760      0.563   *                *                            *
                                                             *   1.58   0.034 *  -3.04     198       0.003 *  -2.75     83.49      0.007
     GROUP 2         56      35.0893      8.492      1.135   *                *                            *
                                                             *                *                            *
----------------------------------------------------------------------------------------------------------------------------------------
YRGRAD     YEARS SINCE HIGHEST DEGREE                        *                *                            *
     GROUP 1        143       5.8951      5.629      0.471   *                *                            *
                                                             *   1.30   0.268 *  -0.61     196       0.546 *  -0.64    111.07      0.522
     GROUP 2         55       6.4182      4.932      0.665   *                *                            *
                                                             *                *                            *
----------------------------------------------------------------------------------------------------------------------------------------
SINCEDIG  YEARS SINCE DIG                                    *                *                            *
     GROUP 1        129       4.5891      2.772      0.244   *                *                            *
                                                             *   1.76   0.021 *   3.51     182       0.001 *   3.92    133.58      0.000
     GROUP 2         55       3.1273      2.091      0.282   *                *                            *
                                                             *                *                            *
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GROUP 1 - SEX      EQ         MEN                                   POST-DIC GROUP
GROUP 2 - SEX      EQ         WOMEN
                                                                      * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                            *                   *                            *
VARIABLE           NUMBER              STANDARD   STANDARD  *    F    2-TAIL    *    T   DEGREES OF  2-TAIL *    T    DEGREES OF   2-TAIL
                  OF CASES     MEAN   DEVIATION      ERROR  *  VALUE  PROB.     *  VALUE   FREEDOM    PROB.  *  VALUE    FREEDOM     PROB.
--------------------------------------------------------------------------------------------------------------------------------------
SUI        SKILL UTILIZATION INDEX                          *                   *                            *
      GROUP 1       142       0.6655       0.171      0.014 *                   *                            *
                                                            *   1.17  0.463     *   0.95     194      0.344  *   0.92     89.46       0.362
      GROUP 2        54       0.6389       0.186      0.025 *                   *                            *
                                                            *                   *                            *
--------------------------------------------------------------------------------------------------------------------------------------
ABU        SATISFACTION WITH ABILITY UTILIZATION            *                   *                            *
      GROUP 1       127      15.5512       5.973      0.530 *                   *                            *
                                                            *   1.05  0.825     *  -0.17     178      0.866  *  -0.17     95.54       0.868
      GROUP 2        53      15.7170       6.166      0.839 *                   *                            *
                                                            *                   *                            *
--------------------------------------------------------------------------------------------------------------------------------------
ACH        SATISFACTION WITH ACHIEVEMENT                    *                   *                            *
      GROUP 1       128      17.0625       4.685      0.414 *                   *                            *
                                                            *   1.20  0.407     *   0.22     179      0.824  *   0.21     89.66       0.830
      GROUP 2        53      16.8868       5.135      0.705 *                   *                            *
                                                            *                   *                            *
--------------------------------------------------------------------------------------------------------------------------------------
ACT        SATISFACTION WITH WORK ACTIVITY                  *                   *                            *
      GROUP 1       127      17.5512       4.769      0.423 *                   *                            *
                                                            *   1.15  0.526     *  -0.35     178      0.727  *  -0.34     91.62       0.734
      GROUP 2        53      17.8302       5.113      0.702 *                   *                            *
                                                            *                   *                            *
--------------------------------------------------------------------------------------------------------------------------------------
ADV        SATISFACTION WITH ADVANCEMENT OPPORTUNIT         *                   *                            *
      GROUP 1       125      14.2560       5.624      0.503 *                   *                            *
                                                            *   1.17  0.493     *   2.48     174      0.014  *   2.40     86.84       0.018
      GROUP 2        51      11.8824       6.072      0.850 *                   *                            *
                                                            *                   *                            *
--------------------------------------------------------------------------------------------------------------------------------------
AUTH       SATISFACTION WITH AUTHORITY                      *                   *                            *
      GROUP 1       125      14.2960       4.757      0.425 *                   *                            *
                                                            *   1.15  0.594     *  -0.70     173      0.487  *  -0.72     96.27       0.475
      GROUP 2        50      14.8400       4.442      0.628 *                   *                            *
                                                            *                   *                            *
--------------------------------------------------------------------------------------------------------------------------------------
COMPP      SATISFACTION WITH COMPANY POLICY                 *                   *                            *
      GROUP 1       124      12.8226       4.569      0.410 *                   *                            *
                                                            *   1.36  0.585     *   2.38     174      0.018  *   2.31     89.69       0.023
      GROUP 2        52      10.9808       4.921      0.682 *                   *                            *
                                                            *                   *                            *
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GROUP 1 - SEX        EQ          MEN
GROUP 2 - SEX        EQ          WOMEN                            POST - DIC GROUP

                                                                              * POOLED VARIANCE ESTIMATE  * SEPARATE VARIANCE ESTIMATE
VARIABLE           NUMBER                   STANDARD    STANDARD  *                                       *
                  OF CASES       MEAN      DEVIATION      ERROR   *    F    2-TAIL  *    T    DEGREES OF 2-TAIL *    T    DEGREES OF  2-TAIL
                                                                  *  VALUE   PROB.  *  VALUE   FREEDOM   PROB.  *  VALUE   FREEDOM    PROB.
--------------------------------------------------------------------------------------------------------------------------------------------
COMPEN     SATISFACTION WITH COMPENSATION
        GROUP 1    123         14.5203       5.637       0.508   *                  *                         *
                                                                  *  1.03   0.882   *   2.51    173     0.013 *   2.49    94.88      0.014
        GROUP 2     52         12.1731       5.715       0.792   *                  *                         *
--------------------------------------------------------------------------------------------------------------------------------------------
COWO       SATISFACTION WITH COWORKERS
        GROUP 1    128         16.2188       3.434       0.304   *                  *                         *
                                                                  *  2.14   0.001   *  -0.88    178     0.382 *  -0.75    71.15      0.456
        GROUP 2     52         16.7885       5.027       0.697   *                  *                         *
--------------------------------------------------------------------------------------------------------------------------------------------
CREAT      SATISFACTION WITH CREATIVITY
        GROUP 1    127         15.8189       5.291       0.469   *                  *                         *
                                                                  *  1.00   1.000   *  -0.80    178     0.426 *  -0.80    97.65      0.426
        GROUP 2     53         16.5094       5.279       0.725   *                  *                         *
--------------------------------------------------------------------------------------------------------------------------------------------
IND        SATISFACTION WITH INDEPENDENCE
        GROUP 1    126         16.1984       4.483       0.399   *                  *                         *
                                                                  *  1.07   0.788   *  -1.21    177     0.229 *  -1.22   100.99      0.224
        GROUP 2     53         17.0755       4.327       0.594   *                  *                         *
--------------------------------------------------------------------------------------------------------------------------------------------
MORAL      SATISFACTION WITH MORAL VALUES
        GROUP 1    123         17.6016       3.838       0.346   *                  *                         *
                                                                  *  1.63   0.033   *  -0.40    171     0.691 *  -0.36    74.61      0.720
        GROUP 2     50         17.8800       4.902       0.693   *                  *                         *
--------------------------------------------------------------------------------------------------------------------------------------------
RECOG      SATISFACTION WITH RECOGNITION
        GROUP 1    128         15.3594       4.863       0.430   *                  *                         *
                                                                  *  1.34   0.187   *   0.41    179     0.683 *   0.38    85.69      0.701
        GROUP 2     53         15.0189       5.635       0.774   *                  *                         *
--------------------------------------------------------------------------------------------------------------------------------------------
RESP       SATISFACTION WITH RESPONSIBILITY
        GROUP 1    126         16.4841       4.647       0.414   *                  *                         *
                                                                  *  1.10   0.666   *  -0.27    176     0.789 *  -0.26    91.29      0.793
        GROUP 2     52         16.6923       4.869       0.675   *                  *                         *
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GROUP 1 - SEX      EQ       MEN                             POST-DIG GROUP
GROUP 2 - SEX      EQ       WOMEN
                                                                              * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
                                                                  *                       *                              *
VARIABLE          NUMBER                  STANDARD     STANDARD    *     F     2-TAIL   *     T    DEGREES OF  2-TAIL *     T    DEGREES OF   2-TAIL
                OF CASES       MEAN   DEVIATION        ERROR    *   VALUE   PROB.    *  VALUE    FREEDOM     PROB. *  VALUE    FREEDOM      PROB.
-------------------------------------------------------------------------------------------------------------------------------------------------
SEC        SATISFACTION WITH SECURITY                              *                       *                              *
      GROUP 1     125       15.4560         5.277        0.472     *                       *                              *
                                                                  *    1.32  0.222     *    1.78      174       0.077 *    1.60      82.52        0.097
      GROUP 2      51       13.8235         6.062        0.849     *                       *                              *
                                                                  *                       *                              *
-------------------------------------------------------------------------------------------------------------------------------------------------
SOL        SATISFACTION WITH SOCIAL  SERVICE                       *                       *                              *
      GROUP 1     127       15.3386         4.957        0.440     *                       *                              *
                                                                  *    1.03  0.858     *   -1.65      177       0.101 *   -1.64      93.42        0.105
      GROUP 2      52       16.6923         5.043        0.699     *                       *                              *
                                                                  *                       *                              *
-------------------------------------------------------------------------------------------------------------------------------------------------
SOCST      SATISFACTION WITH SOCIAL  STATUS                        *                       *                              *
      GROUP 1     126       14.7619         4.655        0.415     *                       *                              *
                                                                  *    1.63  0.029     *    0.40      177       0.693 *    0.36      80.11        0.721
      GROUP 2      53       14.4340         5.940        0.816     *                       *                              *
                                                                  *                       *                              *
-------------------------------------------------------------------------------------------------------------------------------------------------
SUPHR      SATISFACTION WITH SUPERVISION  HUMAN REL                *                       *                              *
      GROUP 1     121       15.0413         5.253        0.478     *                       *                              *
                                                                  *    1.21  0.396     *    1.03      169       0.302 *    0.99      84.07        0.323
      GROUP 2      50       14.1000         5.786        0.818     *                       *                              *
                                                                  *                       *                              *
-------------------------------------------------------------------------------------------------------------------------------------------------
SUPTECH    SATISFACTION WITH SUPERVISION  TECHNICAL                *                       *                              *
      GROUP 1     126       15.4286         4.826        0.430     *                       *                              *
                                                                  *    1.36  0.185     *    1.37      173       0.174 *    1.28      77.05        0.205
      GROUP 2      49       14.2653         5.619        0.803     *                       *                              *
                                                                  *                       *                              *
-------------------------------------------------------------------------------------------------------------------------------------------------
VAR        SATISFACTION WITH VARIETY OF WORK DUTIES                *                       *                              *
      GROUP 1     127       15.9213         4.570        0.405     *                       *                              *
                                                                  *    1.02  0.893     *   -1.44      178       0.152 *   -1.43      96.41        0.156
      GROUP 2      53       17.0000         4.624        0.635     *                       *                              *
                                                                  *                       *                              *
-------------------------------------------------------------------------------------------------------------------------------------------------
WORKCON    SATISFACTION WITH WORKING CONDITIONS                    *                       *                              *
      GROUP 1     128       15.5078         5.002        0.442     *                       *                              *
                                                                  *    1.25  0.310     *    0.02      179       0.984 *    0.02      88.09        0.985
      GROUP 2      53       15.4906         5.601        0.769     *                       *                              *
                                                                  *                       *                              *
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GROUP 1 - SEX        EQ          MEN
GROUP 2 - SEX        EQ          WOMEN                                  POST-DIG GROUP

                                                                *                     * POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE
VARIABLE             NUMBER                STANDARD   STANDARD  *                     *                          *
                    OF CASES      MEAN    DEVIATION     ERROR   *    F     2-TAIL     *    T   DEGREES OF 2-TAIL *    T    DEGREES OF  2-TAIL
----------------------------------------------------------------*  VALUE   PROB.      *  VALUE   FREEDOM   PROB. *  VALUE    FREEDOM    PROB.
INT         INTRINSIC JOB SATISFACTION                          *                     *                          *
      GROUP 1      116       15.8377      3.556      0.330      *                     *                          *
                                                                *   1.29   0.275      *  -0.86     161    0.391  *  -0.82      76.34     0.418
      GROUP 2       47       16.3887      4.044      0.590      *                     *                          *
                                                                *                     *                          *
-------------------------------------------------------------------------------------------------------------------------------------------
EXT         EXTRINSIC JOB SATISFACTION                          *                     *                          *
      GROUP 1      113       14.8780      3.595      0.338      *                     *                          *
                                                                *   1.28   0.202      *   1.26     157    0.209  *   1.20      75.16     0.234
      GROUP 2       46       14.0531      4.065      0.599      *                     *                          *
                                                                *                     *                          *
-------------------------------------------------------------------------------------------------------------------------------------------
GENSAT      GENERAL JOB SATISFACTION                            *                     *                          *
      GROUP 1      106       30.5640      6.329      0.615      *                     *                          *
                                                                *   1.36   0.214      *  -0.05     148    0.958  *  -0.05      70.66     0.961
      GROUP 2       44       30.6264      7.369      1.111      *                     *                          *
                                                                *                     *                          *
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APPENDIX C

Responses to Addendum Questions

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APPENDIX C

Responses to Addendum Questions

One section of the questionnaire was sent only to the members of the post-DIG group, to obtain information on their DIG-related experiences. These questions constituted Section 5 of the questionnaire (see Appendix A). Results reported here are based on the responses contained in 200 returned questionnaires.

Question: In what respects have you found DIG to have been most helpful and least helpful?

	Percentage of Respondents		
Category	*Most Helped*	*Least Helped*	*Didn't Specify*
Self-understanding	65%	7%	28%
Self-confidence	35%	15%	50%
Career Direction	32%	37%	31%
Job Finding Techniques	49%	26%	25%

On average, each respondent selected two categories of greatest help and one that was least helped. Two-thirds of them (65%) were most helped with regard to self-understanding. More than a third (37%) said they were least helped with respect to their career directions. Half of them (50%) were uncertain about DIG's effects on their self-confidence, but the remaining half were divided more than two-to-one on the side of those who found DIG to have been most helpful in this respect also.

Question: Did you use the functional resume essentially as prepared in the DIG program?

83%	Yes
16%	No
1%	Didn't Specify

Question: What was the general receptivity of employers to the functional resume and to the indirect job campaign?

General Receptivity	*Resume*		*Campaign*	
Very positive	38%	44%*	23%	31%*
Somewhat positive	29%	34%	32%	44%
Somewhat negative	15%	18%	14%	20%
Very negative	3%	3%	3%	5%
Not specified	15%	–	28%	–
	100%	100%	100%	100%

*Percentages adjusted to exclude missing responses.

The data indicate that respondents used the resume more than they did the indirect job campaign. The resume was also somewhat better received by employers.

Question: Overall, does your present employment provide satisfying opportunities to use your abilities?

66%	Yes
24%	No
10%	Didn't specify

Nearly three-fourths of those who answered the question replied in the affirmative.

Question: Do you have other outlets for your abilities?

Category	*Number of Times Checked*
Professional groups	41
Civic groups	34
Consulting	36
Hobbies	97
Total of items checked	208

Comments from Respondents

Many of the respondents commented on their DIG experience. Following is a sample of their comments. It is not a representative sample, however; nearly all of the critical comments have been included, whereas many of those that were complimentary were repetitious.

A lot of employers didn't like the non-job-related parts of the resume.

As you can see, I feel quite positive about my experience in the DIG program. However, it is difficult to say whether this is a consequence of the program's design and philosophical approach to career counseling, or whether it resulted merely from the sensitivity and expertise of the counselors at Columbia, who are an extraordinary group of people very gifted in the art of counseling. I fear that the same program, when administered by people who don't have these qualities, is likely to be a disaster. The quality of the people staffing it is everything.

Resume always accepted well. / Campaign accepted according to my performance.

I found the give-and-play of forthright discussions with "Buz" Gummere to be the greatest single stimulus to self-development, increased initiative, and more joy in job-seeking.

I find the "indirect" campaign still very awkward to do. It is hard to ask people for time and advice.

DIG sessions (individual ones) were extraordinarily helpful. I'm sure I owe my present job to the counseling (in large part).

Most of my contacts in the indirect job campaign were either unwilling or unable to provide names of other people I could talk to. Therefore, it fizzled out. I believe that the process would have worked given the time to develop more contacts (through research, writing blind letters of introduction, etc.). I learned a lot in my indirect interviews, but the number of job leads turned up did not justify the expenditure of time.

DIG suggested a positive way to look for a job based not so much on a specific employment but on some type of employment that used my attributes. I developed a functional resume based on my skills and desires and only a very general job description. After having been working in the position for several months, I can see how my resume fit the job requirements "like a glove" despite the generality of job objective.

The counseling helped me recognize my own inflexibility but, since it was not designed to change my fundamental personality, it did not. I was not highly motivated, and DIG could not really help that, either. If my feelings and needs ever change, at least I now have the knowledge and skills ready at hand for a career change and job search.

Resume should reflect more professional active work experience.

Functional resume too corny.

Employers were very impressed and commented on the unique and accurate quality of the Columbia resumes. Richard Gummere and his staff do exceptionally good work. Nothing beats the "DIG" method. I owe him and his staff a lot. You should analyze more about self-employment.

I received positive response for an innovative resume.

I worked for the same agency three years before switching careers. I earn less money, have less security, but love it.

I found each of my three major job changes using DIG techniques and, although my "job satisfaction" score may tally low for my last job, it would have started and been higher reflecting the first year there. I anticipate greater satisfactions in the new position I am beginning soon. I am certainly well aware of the functions and skills I have and want to use. In a sense, DIG has been a cornerstone of my professional development.

The DIG resume got me three job offers in TV production in about two weeks' time, and I had no experience. Also important was the personal help of Mr. Gummere in imparting confidence. However, I always strongly disagreed with the "indirect" campaign. There was no way I could say I was not looking for a job, when it was obvious I was.

The DIG program has shown me what I enjoy and what I can do best. Even if I do not remain in this job I know I am making satisfactory progress toward my career goals, because I will know what I don't want to do. The main reason I feel the DIG program is successful, though, is because of the capable DIG personnel.

The DIG resume and program helped me get a foothold in the industry, which finally led to very large success. Before, I had trouble even getting to first base in an interview. Can't overstress the enormous contribution it made to my life and career!!

A follow-up survey like this is even more evidence of the Placement Office's dedication and concern. They were of great help to me and I hope that even more people will take advantage of their services as time goes on.

They loved the resume until they saw a black woman.

I utilized several aspects of resume to create one of my own which I would call almost quasi-functional; it was a great success, too.

It would be helpful to offer a follow-up program helping one to explore his career potentials even further after he has found the direction and is suitably employed.

Unfortunately, my varied strengths although recognized were often too different for the specific slots that interviewers have the job of filling. In every instance I found the interviewer enthusiastic about my abilities and the way I presented them. *But* I would be overlooked for most jobs because of the following realities: (1) interviewers are narrow in that they are looking to fill *pigeon hole* job requirements and nothing more; (2) it would require a greater mental effort for them to fit me to any job than to go with someone who has filled that type of slot before, so in every case the path of least resistance would leave me jobless!

It was my recognition of these things that left me only two alternative paths. Re-educate myself to fit a slot in the way an interviewer could see my abilities, or go into business for myself, which is what I did. This step has saved me ½ to a dozen years in the process.

Resume and job campaign: I never used it, having lost my nerve at this stage of DIG.

Because I seek freedom of movement and time, I operate as a landscape gardener. Next year I will triple my income. While it is physically satisfying, it is not mentally so. I have therefore turned to part-time teaching--both gardening and history and literature. This combo is fine.

I think the importance of resumes is over-estimated.

Had an unrealistic idea of what kind of job I could find. Did not find a job until I abandoned the impractical notions the DIG program taught. The resume approach was useful, but only in modified and shorter form backed up by real experience.

My problem was the need for such a drastic career change that potential employers did not believe the seriousness of my intentions.

I found the DIG program to be a bit "idealistic." Employers don't want to "create" jobs. In other words, I have never met an employer who would create a job patterned to my strengths.

They (employers) seem to see through to the fact that I am plainly looking for a job. Maybe I should improve my questions.

In banking/finance circles, innovation in resumes is not accepted.

I feel very positive about the DIG experience after four years and more. It improved my whole outlook on life. I cannot think of any aspect of the DIG program that did not benefit me greatly. It helped me to a choice among conflicting goals, and to implement that goal.

APPENDIX D

Correlation Coefficients

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APPENDIX D

Correlation Coefficients

This appendix contains reproductions of computer-produced correlation matrices. The variable names are coded according to the definitions displayed in the printouts of Appendix B.

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              SUI        ABU        ACH        ACT        ADV        AUTH       COMPP      COMPEN     COMO       CREAT

SUI          1.0000     0.5929     0.5565     0.4510     0.4044     0.4535     0.2657     0.1456     0.2345     0.5778
            (     0)   (   379)   (   380)   (   377)   (   373)   (   374)   (   372)   (   375)   (   379)   (   378)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.002    S=0.001    S=0.001

ABU          0.5929     1.0000     0.8240     0.6040     0.6078     0.5548     0.4796     0.3754     0.3713     0.7584
            (   379)   (     0)   (   386)   (   383)   (   380)   (   381)   (   378)   (   380)   (   385)   (   383)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

ACH          0.5565     0.8240     1.0000     0.6806     0.5471     0.5520     0.4750     0.3236     0.4256     0.7721
            (   380)   (   386)   (     0)   (   384)   (   380)   (   381)   (   379)   (   381)   (   386)   (   384)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

ACT          0.4510     0.6040     0.6806     1.0000     0.4383     0.5188     0.3301     0.2907     0.3442     0.5833
            (   377)   (   383)   (   384)   (     0)   (   377)   (   378)   (   377)   (   378)   (   383)   (   381)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

ADV          0.4044     0.6078     0.5471     0.4383     1.0000     0.4731     0.6029     0.6377     0.3550     0.4520
            (   373)   (   380)   (   380)   (   377)   (     0)   (   375)   (   373)   (   374)   (   379)   (   377)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

AUTH         0.4535     0.5548     0.5520     0.5188     0.4731     1.0000     0.3847     0.2798     0.3392     0.6406
            (   374)   (   381)   (   381)   (   378)   (   375)   (     0)   (   374)   (   376)   (   381)   (   378)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

COMPP        0.2657     0.4796     0.4750     0.3301     0.6029     0.3847     1.0000     0.4830     0.3970     0.3983
            (   372)   (   378)   (   379)   (   377)   (   373)   (   374)   (     0)   (   374)   (   379)   (   376)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

COMPEN       0.1456     0.3754     0.3236     0.2907     0.6377     0.2798     0.4830     1.0000     0.2459     0.2255
            (   375)   (   380)   (   381)   (   378)   (   374)   (   376)   (   374)   (     0)   (   380)   (   378)
            S=0.002    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

COMO         0.2345     0.3713     0.4256     0.3442     0.3550     0.3392     0.3970     0.2459     1.0000     0.3454
            (   379)   (   385)   (   386)   (   383)   (   379)   (   381)   (   379)   (   380)   (     0)   (   383)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

CREAT        0.5778     0.7584     0.7721     0.5833     0.4520     0.6406     0.3983     0.2255     0.3454     1.0000
            (   378)   (   383)   (   384)   (   381)   (   377)   (   378)   (   376)   (   378)   (   383)   (     0)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

IND          0.3556     0.5209     0.5493     0.3844     0.3341     0.3514     0.3835     0.2087     0.3034     0.6086
            (   377)   (   383)   (   384)   (   381)   (   377)   (   379)   (   376)   (   378)   (   383)   (   381)
            S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

(COEFFICIENT / (CASES) / SIGNIFICANCE)        (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)
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             IND        MORAL      RECOG      RESP       SEC        SOC        SOCST      SUPHR      SUPTECH    VER

SUI           0.3556     0.1971     0.3201     0.5675     0.1638     0.4223     0.4716     0.2546     0.3007     0.5110
             (  377)    (  369)    (  380)    (  377)    (  373)    (  378)    (  376)    (  365)    (  373)    (  379)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

ABU           0.5269     0.3634     0.5966     0.7400     0.3433     0.5408     0.7622     0.3961     0.4563     0.7364
             (  383)    (  374)    (  386)    (  383)    (  379)    (  383)    (  382)    (  371)    (  379)    (  385)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

ACH           0.5493     0.4386     0.6640     0.7706     0.3495     0.6579     0.7261     0.4493     0.5293     0.7571
             (  384)    (  375)    (  387)    (  384)    (  380)    (  384)    (  383)    (  372)    (  380)    (  386)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

ACT           0.3844     0.3897     0.4292     0.6190     0.3400     0.4672     0.5764     0.2936     0.3598     0.6279
             (  381)    (  372)    (  384)    (  381)    (  377)    (  381)    (  380)    (  369)    (  377)    (  383)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

ADV           0.3341     0.1455     0.4774     0.5251     0.6128     0.2525     0.6161     0.3897     0.4879     0.4892
             (  377)    (  368)    (  380)    (  377)    (  375)    (  377)    (  376)    (  368)    (  375)    (  379)
             S=0.001    S=0.003    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

AUTH          0.3514     0.3060     0.4341     0.7279     0.2839     0.4033     0.5608     0.3485     0.3594     0.5939
             (  379)    (  370)    (  381)    (  381)    (  374)    (  378)    (  377)    (  368)    (  376)    (  381)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

COMPP         0.3835     0.3226     0.5799     0.4588     0.4491     0.2353     0.4761     0.6530     0.6204     0.3977
             (  376)    (  369)    (  379)    (  376)    (  374)    (  377)    (  375)    (  369)    (  375)    (  378)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

COMPEN        0.2687     0.1663     0.3511     0.2968     0.6343     0.1490     0.4576     0.3024     0.3282     0.2622
             (  378)    (  370)    (  381)    (  378)    (  374)    (  379)    (  377)    (  367)    (  374)    (  380)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.002    S=0.001    S=0.001    S=0.001    S=0.001

COWO          0.3034     0.3344     0.4368     0.4139     0.2849     0.3110     0.3736     0.3818     0.4195     0.4207
             (  383)    (  374)    (  386)    (  383)    (  379)    (  383)    (  382)    (  372)    (  380)    (  385)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

CREAT         0.6086     0.4113     0.5693     0.8609     0.2217     0.5501     0.6043     0.4065     0.4302     0.7853
             (  381)    (  372)    (  384)    (  381)    (  377)    (  381)    (  380)    (  369)    (  377)    (  383)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

IND           1.0000     0.4344     0.5207     0.6341     0.2470     0.3525     0.4352     0.3683     0.3746     0.5359
             (    0)    (  372)    (  384)    (  382)    (  377)    (  381)    (  380)    (  369)    (  377)    (  384)
             S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

(COEFFICIENT / (CASES) / SIGNIFICANCE)       (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)
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              WORKCON    INT       EXT       GENSAT

SUI           0.2096    0.6171    0.3649    0.5423
             ( 380)    ( 351)    ( 349)    ( 332)
             S=0.001   S=0.001   S=0.001   S=0.001

ABU           0.3973    0.8750    0.6262    0.8329
             ( 386)    ( 357)    ( 355)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

ACH           0.3693    0.9036    0.6478    0.8589
             ( 387)    ( 357)    ( 355)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

ACT           0.2778    0.7475    0.4789    0.6786
             ( 384)    ( 357)    ( 353)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

ADV           0.4337    0.5887    0.7777    0.7387
             ( 380)    ( 351)    ( 355)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

AUTH          0.2642    0.7183    0.4892    0.6728
             ( 381)    ( 357)    ( 354)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

COMPP         0.5138    0.5033    0.8120    0.7058
             ( 379)    ( 353)    ( 355)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

COMPEN        0.4383    0.3743    0.6999    0.5821
             ( 381)    ( 353)    ( 355)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

COWO          0.4761    0.4586    0.5672    0.5679
             ( 386)    ( 357)    ( 355)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

CREAT         0.2931    0.8852    0.5139    0.7802
             ( 384)    ( 357)    ( 352)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

IND           0.3469    0.6739    0.4711    0.6272
             ( 384)    ( 357)    ( 352)    ( 337)
             S=0.001   S=0.001   S=0.001   S=0.001

(COEFFICIENT / (CASES) / SIGNIFICANCE)      (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)
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            IND        MORAL      RECOG      RESP       SEC        SOC        SOCST      SUPHR      SUPTECH    VER
MORAL       0.4344     1.0000     0.3310     0.4050     0.2571     0.4535     0.3076     0.3098     0.3238     0.3857
           (  372)    (    0)    (  375)    (  373)    (  371)    (  374)    (  371)    (  365)    (  369)    (  374)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

RECOG       0.5207     0.3310     1.0000     0.6683     0.2931     0.3367     0.5661     0.6552     0.6503     0.5121
           (  384)    (  375)    (    0)    (  384)    (  380)    (  394)    (  383)    (  372)    (  380)    (  386)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

RESP        0.6341     0.4050     0.6683     1.0000     0.3383     0.5200     0.6410     0.4543     0.4761     0.7178
           (  382)    (  373)    (  384)    (    0)    (  377)    (  381)    (  380)    (  370)    (  378)    (  384)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

SEC         0.2470     0.2571     0.2931     0.3383     1.0000     0.1673     0.3749     0.3080     0.3787     0.2660
           (  377)    (  371)    (  380)    (  377)    (    0)    (  377)    (  376)    (  369)    (  376)    (  379)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

SOC         0.3525     0.4535     0.3367     0.5200     0.1673     1.0000     0.4986     0.2257     0.2454     0.5000
           (  381)    (  374)    (  384)    (  381)    (  377)    (    0)    (  380)    (  370)    (  377)    (  383)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

SOCST       0.4352     0.3076     0.5661     0.6410     0.3749     0.4986     1.0000     0.3613     0.4241     0.6386
           (  380)    (  371)    (  383)    (  380)    (  376)    (  380)    (    0)    (  369)    (  377)    (  382)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

SUPHR       0.3683     0.3098     0.6552     0.4543     0.3080     0.2257     0.3613     1.0000     0.8501     0.3648
           (  369)    (  365)    (  372)    (  370)    (  369)    (  370)    (  369)    (    0)    (  370)    (  371)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

SUPTECH     0.3746     0.3238     0.6503     0.4761     0.3787     0.2454     0.4241     0.8501     1.0000     0.4195
           (  377)    (  369)    (  380)    (  378)    (  376)    (  377)    (  377)    (  370)    (    0)    (  379)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

VER         0.5359     0.3857     0.5121     0.7178     0.2660     0.5000     0.6386     0.3648     0.4195     1.0000
           (  384)    (  374)    (  386)    (  384)    (  379)    (  383)    (  382)    (  371)    (  379)    (    0)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

WORKCON     0.3409     0.3043     0.3628     0.3557     0.3316     0.2308     0.3897     0.3964     0.4065     0.3770
           (  384)    (  375)    (  387)    (  384)    (  380)    (  384)    (  383)    (  372)    (  380)    (  386)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

INT         0.6739     0.5558     0.6697     0.8889     0.3859     0.6902     0.7915     0.4757     0.5266     0.8492
           (  357)    (  357)    (  357)    (  357)    (  353)    (  357)    (  357)    (  349)    (  354)    (  357)
           S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001    S=0.001

(COEFFICIENT / (CASES) / SIGNIFICANCE)      (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)
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             WORKCON      INT         EXT         GENSAT

MORAL         0.3043     0.5558      0.3748      0.5115
             ( 375)     ( 357)      ( 349)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

RECOG         0.3628     0.6697      0.7355      0.7629
             ( 387)     ( 357)      ( 355)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

RESP          0.3557     0.8884      0.6024      0.8236
             ( 384)     ( 357)      ( 354)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

SEC           0.3316     0.3859      0.6724      0.5645
             ( 380)     ( 353)      ( 355)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

SOC           0.2338     0.6902      0.3435      0.5827
             ( 384)     ( 357)      ( 353)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

SUCST         0.3897     0.7915      0.6243      0.7724
             ( 383)     ( 357)      ( 352)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

SUPHR         0.3964     0.4757      0.7532      0.6652
             ( 372)     ( 349)      ( 355)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

SUPTECH       0.4065     0.5266      0.7862      0.7058
             ( 380)     ( 354)      ( 355)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

PER           0.3770     0.8492      0.5444      0.7719
             ( 386)     ( 357)      ( 354)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

WORKCON       1.0000     0.4174      0.6689      0.5869
             (   0)     ( 357)      ( 355)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

INT           0.4174     1.0000      0.6711      0.9206
             ( 357)     (   0)      ( 337)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

(COEFFICIENT / (CASES) / SIGNIFICANCE)      (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)


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             WORKCON      INT         EXT         GENSAT

EXT           0.6689     0.6711      1.0000      0.9073
             ( 355)     ( 337)      (   0)      ( 337)
             S=0.001    S=0.001     S=0.001     S=0.001

GENSAT        0.5869     0.9206      0.9073      1.0000
             ( 337)     ( 337)      ( 337)      (   0)
             S=0.001    S=0.001     S=0.001     S=0.001

(COEFFICIENT / (CASES) / SIGNIFICANCE)      (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)
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APPENDIX E

Analysis of Group Skill Profiles and Skill Utilization

APPENDIX E

Analysis of Group Skill Profiles and Skill Utilization

Group Skill Profiles

Respondents were asked to name the six most important skills (talents and attributes) that they possessed and that they enjoyed making use of. These six were selected from a list of 43 provided in the questionnaire.

The skills selected as most important by the post- and non-DIG groups are listed in Tables E-1 and E-2, respectively. In order that the data be comparable, skills selected by those over 35, as well as those in the medical and legal professions, are excluded from the tabulations.

The tables show that of the 43 skills listed in the questionnaire, the post-DIG group selected 21 more often than average. These 21 accounted for three-fourths of the group's selections. Similarly, the non-DIG group selected 17 skills which accounted for two-thirds of all the selections it made. Thus, these sets of skills seem to provide a reasonably accurate profile for each group.

The two groups did not seem to differ greatly with respect to the skills they most often selected as characteristic of themselves. The more notable differences were that the control group more frequently selected "logical thinking" and "analyzing" while the post-DIG group emphasized "verbal communication" and "organizing."

Skills Utilization

Respondents were also asked to rate the utilization in their jobs of each of their six most important skills. The results of these ratings provide some sense of the balance between skills offered or available (skill profiles of the group), and those collectively required by their work. The utilization for each of the 43 skills are tabulated in Table E-3. The data shown in the "Both" column represent the mean values for all respondents, and hence can be regarded as relative measures of the usefulness of each skill in the collective job experience of both groups.

The rating scale used was defined in the questionnaire (see Appendix A). Highest utilization was rated 7; lowest (not used at all) was rated 0. The mean value of all ratings obtained was approximately 4.9.

Excluding those skills rated by less than 5 percent of the respondents, those with the highest mean value ratings of use (above 5.5) were:

- responsibility
- verbal communication
- diligence/perserverance
- logical thinking
- self-discipline

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Next highest were (mean values between 5.0 and 5.4):

- analyzing
- expressional fluency
- problem recognition
- patience
- organizing
- memory
- problem solving
- resourcefulness
- cooperating
- decision making
- exactness/detail
- planning
- understanding human interaction

Rated as *least* utilized (mean values from 2.9 to 3.9) were the following:

- aesthetic judgment
- entertaining/performing
- counseling
- foresight

Next to the bottom in terms of use (mean values between 4.0 and 4.5) were:

- creativity/imagination/innovation
- sensitivity/empathy
- conceptualizing
- helping/serving
- managing/directing/supervising
- promoting human relations

Taken together, the above 10 skills were in the lowest quartile of reported utilization.

These data suggest that there may be a greater "supply" of certain skills (aesthetic judgment, creativity, etc.) than there is demand. Hence, those whose dominant skills are in these oversupplied areas might be expected to show a lower Skill Utilization Index than those with the skills in greater demand. It may be observed from inspection of the above lists that among the 18 skills most highly utilized, few are interpersonal skills.

The skill profiles of the two groups (excluding doctors and lawyers and those over 35) were investigated to determine if difference between them might also contribute to differences in the groups' skill utilization scores. This was done by comparing the two groups with regard to their possession of the skills found by the survey to be either most utilized or least utilized.

The 18 skills reported as most utilized (utilization scores above 5.0, as listed above) were somewhat more representative of the non-DIG than the post-DIG group's characteristic skills. These skills accounted for 54.5 percent of the former's selections of most important and satisfaction producing skills, whereas they accounted for only 52.1 percent of the post-DIG group's. Conversely, the 10 least utilized skills (utilization scores below 4.5) were somewhat more representative of the post-DIG group. Corresponding percentages were 26.6 and 24.6 for the post- and non-DIG group, respectively.

Thus, the data showed a slight but consistent tendency to suggest that the post-DIG group, because of its particular skill profile, would report lower utilization of its skills.

TABLE E-1

Post-DIG Group Skill Profile
(Excluding doctors, lawyers, and those over 35)

Skill	*Frequency of Selection**	
	%	*% Accum*
Creativity/imagination	6.7	6.7
Verbal communication	5.3	12.0
Responsibility	4.8	16.9
Organizing	4.6	21.4
Analyzing	4.6	26.0
Problem solving	3.8	29.8
Expressional fluency	3.5	33.3
Logical thinking	3.4	36.8
Fluency with ideas	3.3	40.1
Aesthetic judgment	3.0	43.1
Planning	3.0	46.1
Diligence/perseverance	2.9	49.0
Helping/serving	2.9	52.0
Persuading/influencing	2.9	54.9
Sensitivity/empathy	2.8	57.7
Initiative/enterprise	2.8	60.5
Conceptualizing	2.7	63.1
Teaching/training	2.7	65.8
Managing/directing/supervising	2.5	68.3
Decision making	2.4	70.7
Understanding human interaction	2.4	73.1

*An equal number of selections for each of the 43 skills listed in the questionnaire would give each skill 2.3% of the total.

TABLE E-2

Non-DIG Group Skill Profile
(Excluding doctors, lawyers, and those over 35)

	*Frequency of Selection**	
Skill	*%*	*% Accum*
Creativity/imagination	7.5	7.5
Analyzing	5.8	13.3
Logical thinking	5.8	19.0
Expressional fluency	4.3	23.4
Fluency with ideas	4.3	27.7
Problem solving	4.3	32.1
Responsibility	4.3	36.4
Understanding human interaction	3.7	40.2
Verbal communication	3.5	43.7
Aesthetic judgment	3.5	47.2
Teaching/training	3.1	50.3
Decision making	2.7	53.0
Exactness/detail	2.7	55.7
Resourcefulness	2.7	58.4
Conceptualizing	2.5	60.9
Diligence/perseverance	2.5	63.4
Managing/directing/supervising	2.5	65.8

*An equal number of selections for each of the 43 skills listed in the questionnaire would give each skill 2.3% of the total.

TABLE E-3

Skill Utilization Ratings*

Skill	Group Means Post-DIG	 Non-DIG	 Both
acceptance/appreciation of others	4.6	4.6	4.6
aesthetic judgment	3.2	2.6	2.9
analyzing	5.1	5.6	5.4
computing	4.7	4.0	4.4
conceptualizing	4.2	4.6	4.4
counseling	3.7	4.3	3.9
creativity/imagination/innovation	4.1	4.4	4.3
cooperating	4.8	5.8	5.1
dealing with social situations	4.1	5.1	4.7
decision making	4.3	5.5	5.0
diligence/perseverance	5.1	6.0	5.5
exactness/detail	5.0	5.0	5.0
expressional fluency	5.4	5.2	5.3
entertaining/performing	3.0	3.9	3.4
foresight	3.4	4.5	3.9
generalizing	7.0	5.5	6.3
helping/serving	4.6	4.2	4.4
fluency with ideas	5.2	4.6	4.9
initiative/enterprise	4.6	5.1	4.8
logical thinking	5.1	5.8	5.5
memory	4.5	5.6	5.1
mechanical aptitude	4.7	3.6	3.9

*Scale used:

0 — not utilized
1 — under unusual circumstances, may be utilized to a minor extent
4 — substantially utilized
7 — most highly utilized

TABLE E-3, continued

	Group Means		
Skill	*Post-DIG*	*Non-DIG*	*Both*
managing/directing/supervising	4.4	4.5	4.4
motivating/encouraging	4.8	5.2	4.9
organizing	5.3	4.9	5.2
patience	5.8	4.9	5.3
persuading/influencing	4.7	4.4	4.6
promoting human relations	4.3	4.8	4.4
planning	5.0	5.1	5.0
problem recognition	4.9	5.6	5.3
problem solving	4.5	5.6	5.1
quantitative thinking	4.5	4.0	4.3
resourcefulness	4.8	5.5	5.1
receptivity/adaptability/flexibility	5.0	4.4	4.7
responsibility	5.7	5.8	5.7
self-discipline	5.7	5.1	5.5
sensitivity/empathy	4.5	4.2	4.3
teaching/training	4.5	5.1	4.8
time-sharing	6.0	–	6.0
tolerance of ambiguity	5.0	4.3	4.6
trouble-shooting	4.2	5.3	4.6
understanding human interaction	4.9	5.1	5.0
verbal communication	5.6	5.6	5.6

APPENDIX F

The DIG Approach

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The DIG Approach

DIG (Deeper Investigation of Growth) is a structured program of occupational guidance offered to students and alumni of Columbia University by its Office of University Placement and Career Services. It is a non-credit program which involves approximately six hours of small group session, three to six hours of individual counseling, and the development of a personal resume.

The program employs techniques which are variants of those advocated by Haldane, Crystal, Bolles, and others. As described by Richard Gummere, who directs the program,

> The program helps individuals by teaching them all how to identify and report their successes. The word success here signifies anything a person has loved doing and has done well. He may have done it at any time in his life, anywhere, for any reason. He may have done it unbeknownst to anyone else or in the sight of the whole world. But if he recalls that he did it with great satisfaction and that he did it well—according to his own values—he may call it a success.
>
> What, more precisely, do students and alumni do in DIG? First, they take the time to write a description of all those things they've most enjoyed doing from early childhood right up to today. One person recalls keeping a diary, another trimming trees; one recalls interviewing people for a sociology paper on picketing, another reorganizing the high school senior prom.
>
> Second, they analyze each of these successes to see quite clearly what made it so satisfying. To the diarist this was doing something alone; it was writing; it was record-keeping. To the tree-trimmer it was being outdoors, service, teamwork, and a clearly finished task. To the sociology interviewer the delight came from moving around, communicating with people, gathering information, while to the prom chairman it came from leadership, planning, precipitating change, and getting recognition. To one tree-house builder the joy of it came from organizing the work (apparently they tend to work in groups), to another doing the carpentry, to a third thinking up the project, and to a fourth persuading parents that the house would be a safe place for the group at an altitude of 30 feet.
>
> Third, students keep a list of all such factors or functions which they find in all their successes, and then they see which ones have recurred most often, especially in their favorite experiences. (Gummere, 1972)

Proceeding from this analysis, participants in the program go on to develop a personal resume structured around their success factors and drawing upon their experiences. Finally, they are counseled in the use of job-hunting techniques which are intended to assist them to discover a good fit between their success factors and the requirements of potential positions.

Richard Miguel has analyzed the program in these words:

> Columbia's Deeper Investigation of Growth (DIG) program recognizes that the development of skills contributing to occupational transferability occurs over a long period of time. They also observe that the preferences and priorities of individuals determine which skills are favored or rejected for continued use or development. The results of this favoring or rejecting process apparently fade into the unconscious. DIG's main purpose is to help individuals develop self-analysis skills by discovering the pattern of skills and characteristics they have developed as a result of achievements that have produced personal success and satisfaction. DIG's director indicates that they use the "Socratic Method," that is, questions designed to elicit explicit expressions of something implicitly known.
>
> Through this "success factor analysis" DIG participants recognize emerging patterns of skills and personal characteristics. The fact that these skills and characteristics are preeminent and recurring suggests they are transferable, and hence, the participants continue to seek work which complements their success patterns. Participants are then guided to find occupational applications for their unique combination of skills and characteristics which now have become the heart of their resumes.
>
> The DIG resume is a good example of basing a practice on a notion of transferability. Because these individuals have little or no idea of the occupations they might best enter, ... the resumes highlight widely applicable skills and characteristics with clear examples of accomplishments associated with their development.
>
> The hierarchy in which the skills and characteristics are arranged in the resume gives insight into occupational possibilities but does not limit individuals as many traditional resumes do. For people with little work experience or those who want to enter a new and different occupation, placing the emphasis on widely applicable skills and characteristics seems to be a successful way to communicate the preferred work activities of an individual and also enables employers to focus on pertinent skills and characteristics that tend to become lost in a mere listing of work history. (Miguel, 1977)

REPORTS ON OCCUPATIONALLY TRANSFERABLE SKILLS

McKinlay, B. *Characteristics of jobs that are considered common: Review of literature and research* (Info. Series No. 102), 1976. ($3.80)

A review of various approaches for classifying or clustering jobs, and their use in (a) describing the elements of commonality involved when people make career changes, and (b) understanding better the concepts of occupational adaptability and skill transfer.

Altman, J.W. *Transferability of vocational skills: Review of literature and research* (Info. Series No. 103), 1976. ($3.80)

A review of what is known about the transferability of occupational skills, describing the process or the facilitators of skill transfer.

Sjogren, D. *Occupationally transferable skills and characteristics: Review of literature and research* (Info. Series No. 105), 1977. ($2.80)

A review of what is known about the range of occupation-related skills and characteristics that could be considered transferable from one occupation to another, describing those transferable skills which are teachable in secondary and postsecondary career preparation programs.

Ashley, W.L. *Occupational information resources: A catalog of data bases and classification schemes* (Info. Series No. 104), 1977. ($18.20)

A quick and concise reference to the content of 55 existing occupational data bases and 24 job classification schemes. Abstracts of each data base and classification scheme include such information as: identification, investigator, location, documentation, access, design information, subject variables, occupation variables, and organization variables.

Wiant, A.A. *Transferable skills: The employer's viewpoint* (Info. Series No. 126), 1977. ($3.25)

A report of the views expressed in nine meetings across the country by groups of local community and business representatives concerning the types of transferable skills required and useful in their work settings and how a better understanding of transferable skills could improve training and occupational adaptability.

Miguel, R.J. *Developing skills for occupational transferability: Insights gained from selected programs* (Info. Series No. 125), 1977. ($3.80)

A report of clues and suggestions gained in the review of 14 existing training programs, with recommendations for practice which appear to have been successful in recognizing skill transfer and taking advantage of an individual's prior skills and experience.

Ashley, W.L., & Ammerman, H.L. *Identifying transferable skills: A task classification approach* (R&D Series No. 146), 1977.

A report of an exploratory study designed to test the usefulness of three classification schemes in identifying the transferable characteristics of tasks in diverse occupations.

Pratzner, F.C. *Occupational adaptability and transferable skills* (Info. Series No. 129), 1977. ($6.25)

A summary final report, presenting and discussing an array of issues encountered in the various project activities, and offering recommendations.

Selz, N.A., & Ashley, W.L. *Teaching for transfer: A perspective for practitioners* (Info. Series No. 141), 1978. ($2.35)

An informal discussion of the need for teachers and trainers to give more attention to developing transferability and transferable skills in students for learning and life performance applications. Practical suggestions and techniques for improving the capacity of students to transfer learned skills and knowledge to new situations are given.

Brickell, H.M., & Paul, R.H. *Minimum competencies and transferable skills: What can be learned from the two movements* (Info. Series No. 142), 1978. ($5.10)

A report comparing and contrasting potential impact of the transferable skills and minimum competency testing movements on school programs, staff, and students. Key questions and alternative strategies are presented to assist educational planners and administrators in formulating policy and establishing promotion or completion criteria in secondary and postsecondary education.

THE FOLLOWING REPORTS WILL BE AVAILABLE IN 1980:

Ashley, W.L., Laitman-Ashley, N.M., and Faddis, C.R. (Eds.) *Occupational adaptability: Perspectives on tomorrow's careers* (Info. Series No. 189), 1979.

Proceedings from a national symposium. The topics focused on how training for adaptability can increase the use of human resources in the labor force.

Selz, N. (Ed.) *Adult learning: Implications for research and policy in the eighties*, 1979.

Proceedings from a national symposium on adult learning. Topics include state of the art, research into practice, policy implementation, and future directions.

Wiant, A.A. *Self-assessment for career change: Does it really work? Summary report of a follow-up study* (Info. Series No. 191), 1979.

An analysis of the impact of self-assessment on one's subsequent employment experience. The particular assessment technique studied is one intended to help identify those skill attributes which have provided satisfaction in various life experiences. Outcome measures included skill utilization and job satisfaction.

Selz, N.A., and Jones, J.S. *Functional competencies in occupational adaptability and consumer economics*, 1979.

Perceptions of national adult samples are reported. Document includes where competencies should be taught—at home, at school, on-the-job, self-taught—and how important these competencies are in successful work and life activities.

Kirby, P. *Cognitive style, learning style, and transfer skill acquisition*, 1979.

A review and synthesis of the literature in adult learning styles, as they relate to the acquisition of transfer skills.

Knapp, J.E. *Assessing transfer skills*, 1979.

A review of traditional and non-traditional assessment with respect to the assessment of transfer skills.

Sommers, D. *Empirical evidence on occupational mobility* (Info. Series No. 193), 1979.

A review and synthesis of the literature on the characteristics of occupationally mobile workers and their jobs.

Laitman-Ashley, N.M. (Ed.) *Women and work: Paths to power* (Info. Series No. 190), 1979.

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